

MARINE REVIEW.

VOL. V.

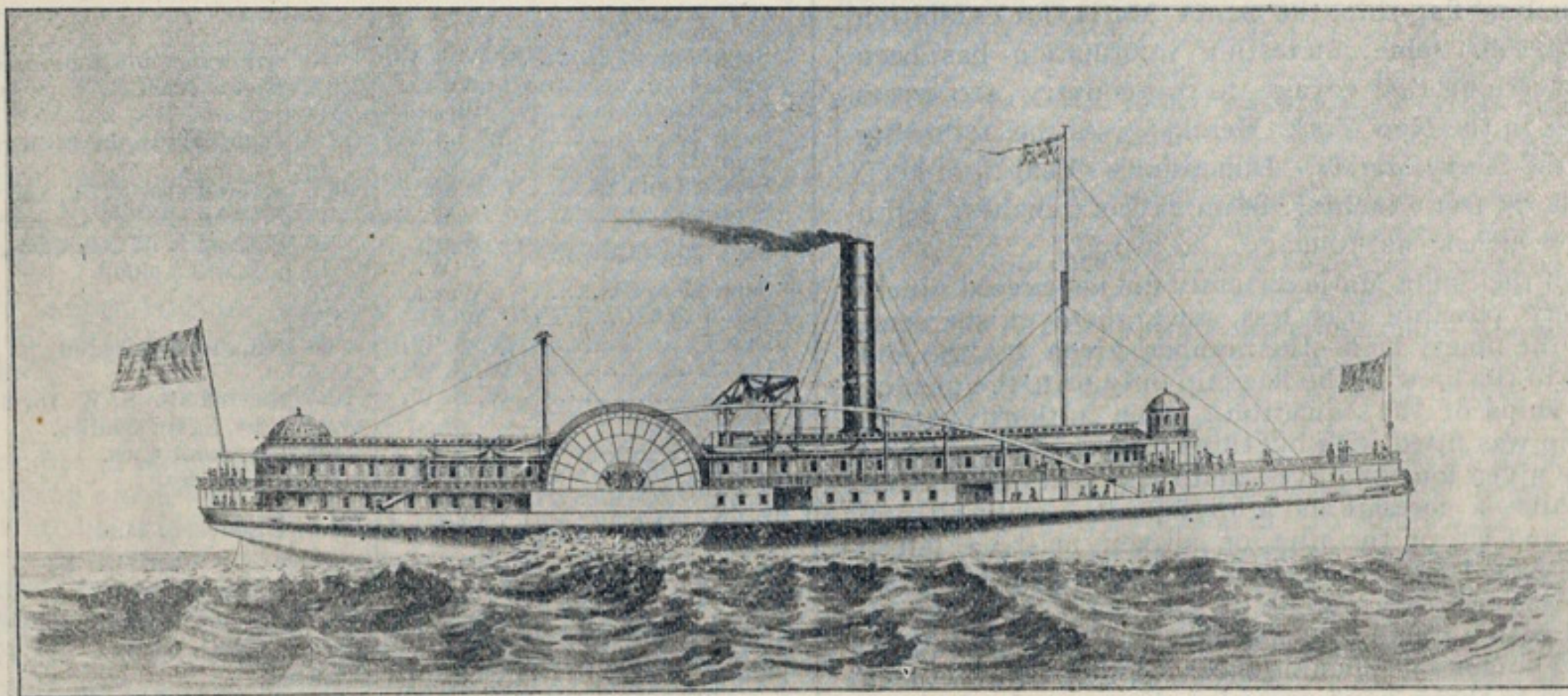
CLEVELAND, OHIO, THURSDAY, MAY 26, 1892.

No. 22.

Elegant Passenger Boats

A great deal has been said of late regarding some of the costly and powerful passenger steamers operated on Lake Erie between Toledo, Cleveland and Buffalo previous to the consolidation of railways now making up the Lake Shore & Michigan Southern and other parts of the important Vanderbilt system. The boats were the finest both as to construction of hull and extent of power ever operated on the lakes, as a description of one of them, the Western Metropolis, a picture of which accompanies this article, will show. The Western Metropolis was built in 1856 by Bidwell, Banta & Co. of Buffalo for the Michigan Southern & Northern Indiana Railway Company, and was one of a fleet comprising also the steamers Northern Indiana, Southern Michigan and Empire State, all beam engine boats and all of the high class referred to, excepting the Empire State, which was of earlier construction.

The Western Metropolis was 340 feet over all, 40 feet beam and about 18 feet hold. The wooden hull, supported by overhead arches, was of very fine lines, as shown in the engraving,



OLD-TIME PASSENGER STEAMER WESTERN METROPOLIS.

but it is in the powerful machinery used that most interest still attaches. The Northern Indiana and Southern Michigan as well as the Metropolis could make 20 miles an hour on long runs and might improve upon that record on a short spurt. They were run regularly at 19 miles an hour. The beam engines were built by Merrick & Towne of Philadelphia. The diameters of the cylinders in the Western Metropolis were 76 1/4 inches and length of stroke 12 feet. She had two boilers, 12 feet in diameter and 30 feet long, built by the Buffalo Steam Engine Company and allowed 55 pounds of steam, although more than 50 pounds was seldom used. The wheels were of iron, 38 feet in diameter, and could be turned 21 1/2 revolutions per minute. The coal consumption was, of course, not less than three tons per hour. Everything that could be used to give comfort and pleasure was made a part of the cabin arrangements. The upholstery was of the finest material and the tapestries of the rarest quality.

These boats were at first run between Toledo and Buffalo and had formidable rivals in the Crescent City and Queen of the West, boats in service between Cleveland and Buffalo in con-

nection with the Cleveland, Columbus, Cincinnati & Indianapolis and the Erie railways. They were afterward engaged partly in the trade out of Cleveland as the consolidation of railways progressed and finally removed entirely from the lake service. The machinery of the Western Metropolis was taken to New York and placed in another boat, also called the Western Metropolis, which was afterwards used during the war as a transport. The hull was converted into a sail vessel, which was wrecked some years ago near the head of Lake Michigan. Similar disposition was made of the other boats and their machinery.

During the first season of service of the steamer Western Metropolis on the lakes she was commanded by A. D. Perkins of Monroe with John Thompson of Buffalo as mate, Thomas Fitzpatrick, then of Buffalo, first engineer, Nicholas Nipper of Buffalo second engineer, and Bartly Logan as steward. Of these officers Capt. Perkins and Second Engineer Nipper are dead. Mr. Thompson has retired to a farm near Buffalo, Steward Logan is still in service about the lakes, and Mr. Thomas Fitzpatrick, to whom we are indebted for information contained

in this article, couples some interest in the management of his vessel property with the comforts of a country home at Mentor, near Cleveland.

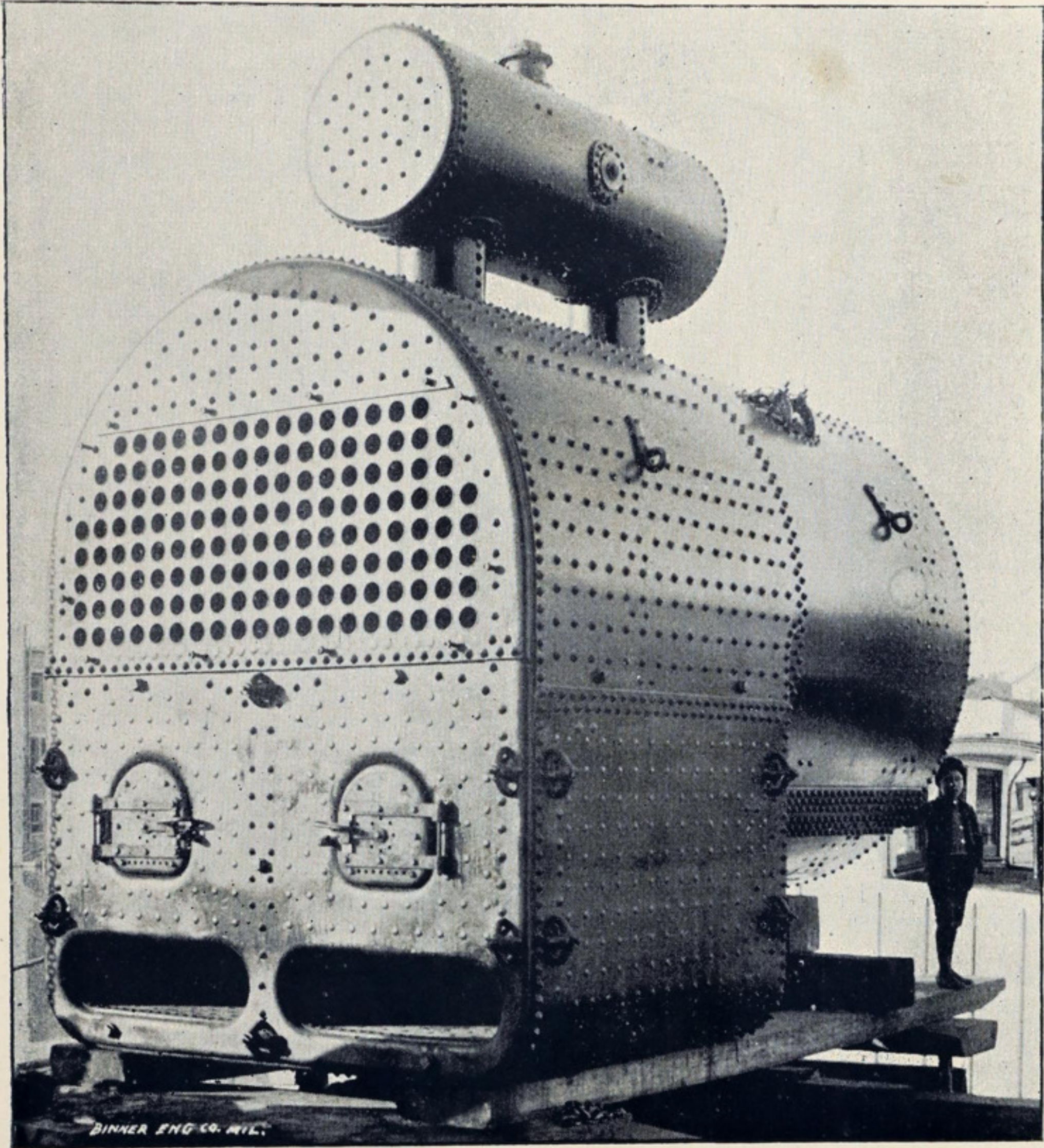
New Boilers for the Michigan.

The navy department, Washington, opened bids Friday for two flue fire tube boilers and one steam drum for the U. S. S. Michigan, in service on the lakes. The old boilers in the boat were to be taken in part payment for the new ones. Following are the bids:

Name of bidder.	Total.	For old boiler.	Net.
Detroit Dry Dock Company.....	\$11,500	\$500	\$11,000
Cleveland Ship Building Company.....	14,400	500	13,850
Quintard Iron Company, New York....	19,787	576	19,213
Lake Erie Boiler Works, Buffalo.....	8,650	650	8,000

The Cleveland Ship Building Company also made a bid of \$13,000 if the boilers were put in by them at Cleveland instead of Erie. The bureau of steam engineering of the department has recommended the acceptance of the Lake Erie Company's bid.

Send 20 cents in stamps for Tabulated Statement showing Lake Superior ore production for 1891, and the past 36 years.



Built by MANITOWOC (Wis.) STEAM BOILER WORKS.

Supplement MARINE REVIEW, Cleveland, O.

BOILER FOR STEAMER EDWARD BUCKLEY.

Lake Freight Matters.

Iron ore dealers have been engaged in negotiations for some sales of non-Bessemer during the past week, notably a fairly large quantity for Carnegie interests, but there is no general movement towards increased sales and producers are in most cases desirous that further sales shall be delayed until July, when the furnace owners may be in a position to pay better prices, as the situation in the iron market at present is no better in this regard. Under a suspension of grain shipments lake freights have, in the meantime, been reduced to \$1.15 from Ashland and 70 cents from Escanaba, with Marquette shippers offering only 95 cents, although they have secured no tonnage at that figure. The freight market is not as strong as it has been during the two weeks past, although there is no cause for expecting a general falling off in rates. Soft coal tonnage is wanted for all upper lake ports and rates are strong on a basis of 45 cents to the head of Lake Superior and 50 cents to Chicago and Milwaukee.

Voyages of Discovery.

There is considerable interest on board a vessel when it is running a new channel or when a new course is being steered, but it can not compare with the excitement and spirit of adventure among officers and crew of a vessel that enters an unknown sea, or sails into waters only known by discoverers. No more interesting document of early lake navigation could be found than the log of the Griffin, La Salle's ship, that carried the pioneer cargo from Lake Erie to Chicago and so mysteriously disappeared on the return trip. Since it has been decided to reproduce Columbus' flag-ship, the Santa Maria, for exhibition at the World's Fair, some interesting information has been gathered up concerning that voyage to this country 400 years ago. An article in the New York Herald gives the following information of the Santa Maria: Dimensions—Length of keel, 63 feet; over all, 75 feet 6 inches; beam 22 feet 6 inches; depth of hold, 14 feet 8 inches; net tonnage, 120 to 130.

The crew of the Santa Maria certainly did not exceed ninety all told, and very possibly was less, since there exists some doubt whether the ninety men—the number given by the old records—refers to the crew of the flagship only, or to the men on board all three ships of the squadron. One authority states that the flagship was fitted with but three masts—many pictures heretofore have given four and five—and these spars carried but five principal sails—a foresail and a foretopsail, a mainsail and a main topsail, and aft, on the after or mizzen mast, a lateen sail, a long jib-shaped sail, attached on its longer edge to a yard. Forward there was certainly one jib, if not more. The mainmast was fitted with a round top, provided with a high rail, so that there could be concealed behind these bulwarks musket men and men detailed to throw hand grenades down on the decks of an enemy's ship. It is not unlikely that there was a similar top on the foremast.

The general shape of the hull of the Santa Maria was round bottomed, with "tumble-home" sides, like other ships of the fifteenth century. Aft, above the sheer of the deck proper, there rose a long, high poop—a great castle, as it was called—which was provided with ports along the side and at the stern. Within this poop were the admiral's quarters, in much the same place as they are to be found today in our most modern ships. Forward there was another similar structure, covering in the forecabin, though it was not so high nor anything like as long as the poop aft. The ship's deck amidships, between these two superstructures, was entirely uncovered, and as the freeboard was low it was very close to the water. The Santa Maria carried one long boat because Columbus speaks of it in his journal. It seems to have been rather long to be stowed on the deck of the ship, yet it is hardly probable that it was towed astern. She behaved herself well in the most trying weather and had the good speed of a fine sailer. This quality of good speed must have been possessed by the other two ships as well, for the journal frequently mentions that the fleet sailing together made a speed of 11 knots an hour, which seems a really remarkable performance for that time. But the rate of speed maintained by some of the other ships of that century was very high. Thus a

run of 440 miles was made in thirty-six hours by a caravel under the command of Vincento Lago. This was at the rate of 12.5 sea miles per hour.

The fleet carried at the heads of their mainmasts the royal standard of the house of Castile and in addition to this the Santa Maria flew from the head of her foremast the flag of the admiral. The royal standard was divided into four squares, alternately red and white. In each one of the red squares there was a castle and in each one of the white squares a lion. These insignia represented the arms of Castile only—the arms of the Aragon being excluded from the flag by order of Queen Isabella, because the government of that country had refused to share in the expense of the expedition. The flag of the great Columbus was a white guidon, with a green cross on it lying between the letters F and I, the initials of the names of Ferdinand and Isabella, who had given these arms to Christofor Columbus. A noticeable feature in the fleet is that a cross was painted on the sails of the ships. This was in accordance with the custom adopted by the Spaniards and Portuguese as a means of distinguishing their ships from those of infidels.

At 8 o'clock on Friday morning, Aug. 3, 1492, Columbus weighed anchor from the harbor of Palos and shaped his course southward for the Canary islands, 700 miles distant, where he arrived on Aug. 12. He refitted and reprovisioned, and on Nov. 6 he made sail and stood out boldly across an unknown sea to reach an unknown shore. The wind fell light off the Peak of Teneriffe and the fleet lay becalmed until Saturday, Sept. 8, when the course was set at west. An abstract of the log of the cruise is as follows:

Day of Month.	Courses.	Distance run in leagues.	REMARKS
Sept. 6 and 7.....	S. W. $\frac{1}{2}$ W.	3	Allowance for departure.
Sept. 8.....	West.	9	Breeze from N. E.; a head sea.
Sept. 9 to 19.....	West.	413	
Sept. 20.....	W. by N.	7.5	Light winds and calms.
Sept. 21 and 22.....	W. N. W.	43	
Sept. 23 and 24.....	West.	36.5	Steered also N. W. and W. N. W.
Sept. 25.....	S. W.	17	Steered also W. 4.5 miles.
Sept. 26.....	{ West. S. W.	16 15	Steered S. W., thinking he saw land; it was a cloud.
Sept. 27 to 30.....	West.	76	
Oct. 1 to 6.....	West.	271	
Oct. 7.....	W. S. W.	28	Nina reported land.
Oct. 8.....	W. S. W.	11.5	
Oct. 9.....	W. S. W.	20.5	Steered also S. W. for 6 miles and W. by N. for 5 miles.
Oct. 10.....	W. S. W.	59	Crew mutinous.
Oct. 11.....	{ W. S. W. West.	27 17	Heavy sea.
Friday, Oct. 12.....	West.	7.5	Discovered land.

This gives a total distance of 1,111 leagues sailed, according to the way that Columbus reckoned, equal to 1,178 nautical leagues and to 3,535 nautical miles.

The uncertainty of this official log for accurately plotting Columbus' track may be understood from the fact that the only way the old navigator had for determining his longitude or his westing was by "dead reckoning." This method depends for its accuracy on the run of the ship, and in making up this run the speed of the ship was estimated by the eye. The time was kept by the sand glass.

That the pilots, as the navigating officers were called, were fairly proficient in their business is shown by comparing the reckoning given on Sept. 19. The Nina reported her position as 440 leagues distant from the Canaries, the Pinta as 420 and the admiral as 400. On Oct. 1 the pilots gave 580 leagues from their port of departure and the admiral acknowledged 584, but in his private reckoning he gave his distance as 707 leagues.

A Fire-Box Boiler.

The boiler illustrated in a supplement to this issue was built by the Manitowoc (Wis.) Steam Boiler Works for the steamer Edward Buckley. It is 14 feet long and 9 feet diameter. The plate is 11-16 inch thick, the weight being 25 tons. The inspectors allowed a steam pressure of 140 pounds.

Notice is given that the black third class nun buoy off Saunders' point, Little Bay de Noc, has disappeared and will be replaced as soon as practicable.

Iron Mining.

VALUE OF LEADING STOCKS.

Quoted by Chas. H. Potter & Co., No. 104 Superior St. Cleveland, O.

Stocks.	Par Value.	Bid.	Asked.
Cleveland-Cliffs Iron Company.....	\$100 00	\$.....	\$ 75 00
Champion Iron Company.....	25 00	.....	60 00
Chandler Iron Company.....	25 00	.....	45 00
Jackson Iron Company.....	25 00	.....	100 00
Lake Superior Iron Company.....	25 00	44 00	47 00
Minnesota Iron Company.....	100 00	.....	75 00
Pittsburgh & Lake Angeline Iron Co.....	25 00	.....	150 00
Republic Iron Company.....	25 00	.....	21 00
Ashland	25 00	.....	.....
Section Thirty-three.....	25 00	.....	7 00
Brotherton.....	25 00	.....	2 50
Iron Belt.....	25 00	2 15	2 25

Shipments from Ashland to May 18, foot up only 119,456 gross tons as follows: Ashland 5,596 gross tons; Aurora 18,001, Colby No. 2 1,573, Tilden 1,313, Palms 11,560, Brotherton 5,585, Careys 2,725, Norrie 35,696, East Norrie 14,159, Pabst 7,557, Sunday Lake 8,602. On the same day shipments from Two Harbors aggregated 57,793 gross tons of which 21,311 tons was from the Minnesota mines and 36,482 tons from Chandler.

Now it is said on good authority that David Kimberly has agreed to pay but 50 cents a ton royalty to the Biwabik company, the only Mesaba concern with which a lease has been negotiated. The royalty is considered high enough by operators in the oldest ranges.

At the Brotherton's new shaft a vein of high grade ore has been struck. The vein is about 30 feet wide and continues to the south and is thought to be a continuation of the old vein. The development of this mine is proving very gratifying to the management.—Negaunee Independent.

The mine of the Lamont Iron Company, Menominee range, is producing 200 tons of ore a day, and the company will, just as soon as things are put in shape, double the output. A meeting of the directors was held in the Chicago office recently and the following officers elected for the ensuing year: E. E. Crepin, president; A. C. McKinzie, vice-president; H. Pirmily, treasurer; R. F. Clinch, secretary; Frank Scadden, general manager.

Rails are being laid on the new Huron Bay railway and contracts have been let for constructing the iron ore and merchandise docks.

Floating the New Fleet.

In the number of launches now taking place around the lakes, the building operations of the past winter are shown. A few new keels are being put down, but builders and owners will undoubtedly await further developments in freights, while finishing present work, before doing a great deal in this line. The Cleveland Ship Building Company on Wednesday launched the steel steamer Choctaw, the second boat of the monitor type. A sistership to the Choctaw, the Andaste, which has proved a very good carrier, was fully described in the last issue of the REVIEW. A boat of the same type of 300 feet keel will immediately be put down at this yard on builders' account.

Invitations have been issued for the launch of the Erie & Western Transportation Company's steamer Codorus, building at the yard of the Union Dry Dock Company, Buffalo. The Codorus is the first of the three steel steamers building for this company, the other two being about ready for launching at the yards of the Globe company, Cleveland, and the Detroit Dry Dock Company, Detroit. Dimensions and other leading features of the boat building at Buffalo are: Length of keel, 275 feet; length over all, 290 feet; molded beam, 40 feet; molded depth, 26 feet; displacement at 16 feet draft, 4,340 tons; triple expansion engines, diameter of cylinders, 20, 33 and 54 inches by 45 inches stroke; two boilers, 12 feet long and 14 feet diameter for 160 pounds steam; wheel, 12½ feet diameter and 16 feet pitch.

At the yard of the Chicago Ship Building Company, South Chicago, work has been commenced on a steel steamer for Maytham, Kelderhouse, and others of Buffalo. She is to be 12 feet longer than the Brazil and will have 1 foot more beam, her dimensions being, keel 287 feet, beam, 41 feet, depth 24½ feet. She will have triple expansion engines built by Trout of Buffalo, 19, 32 and 52 with 45 inch stroke and two Scotch boilers to be built by the Lake Erie Boiler Works also of Buffalo. She will be completed in October and will cost \$170,000.

The steamer Samuel Mather, last of the whalebacks launched at the yard of the American Steel Barge Company, West Superior, is the twenty-second boat of this type now afloat and is the largest carrier of the fleet. She is expected to take 100,000 bushels of wheat on 14 feet 6 inches. Four more whalebacks, the two Canadian package freight steamers and the steamer and consort building for Samuel Mather and others of Cleveland, will be afloat shortly, probably before the middle of next month.

The steamer John S. Ketcham, launched at the yard of the Craig Ship building Company Saturday, is the first steel steamer built on the lakes for the lumber business. She is 190 feet keel, 40 feet beam and 15 feet molded depth and is expected to carry about 1,250,000 feet of lumber on Lake Superior draft. Her engines are compound, 22 and 44 by 36 inches stroke.

At West Bay City on Tuesday next F. W. Wheeler & Co., will launch the schooner John C. Fitzpatrick, consort for the George T. Hope. The boat will be ready for service in about four days after being launched.

Wooden Ships From River Towns.

Although the great bulk of the new tonnage now being floated from the different lake ship yards will come from the big iron plants, the wooden builders at Marine City and Port Huron have not been idle. A great deal has been said about the wooden boats building at West Bay City, while a fleet of proportionate importance is about leaving the yards at Marine City and Port Huron without much attention being paid to them. The first of them, the steamer Iroquois, began service in Cleveland this week by taking on a cargo of coal. The Iroquois was built by M. P. Lester at the Marine City yard of Curtis & Brainard of Toledo, and is a good specimen of the lake type of wooden boat. Although not of very heavy construction, she is strapped very thoroughly and arched so as to be a very staunch boat. Her dimensions are 247 feet keel, 42.8 feet beam and 21 feet hold, and she is expected to carry about 2,300 gross tons of ore from Escanaba. Her engines and boilers, built by the Phoenix Iron Works of Port Huron, are very well arranged. The cylinders of the engine, compound, are 27 and 54x42 inches and the boilers 14x9½ feet. The cabins are finished in hardwood and the craft is altogether a business boat that shows the practical experience of the owners. She has a steam windlass and steam steerer, the former from the American Ship Windlass Company of Providence, R. I., and the latter from the Globe Iron Works Company, Cleveland. Capt. William Hagan is master and Samuel L. Phillips chief engineer.

Other boats about to go into commission from Marine City are the steamer Harvey J. Kendall and tow barge Alex Anderson, built by Alex Anderson at Holland's yard, for parties interested in the Mills Transportation Company. The Kendall, a lumber carriers of about 600,000 feet capacity, is already in service, and the barge, which is intended to tow with the B. W. Arnold, will be out shortly. A big steamer building at Morley's yard will not be out until fall. At Port Huron work is progressing on the steamer building at the yard of the Jenks Ship Building Company.

Official Numbers and Tonnage.

During the two week ending Saturday, May 21, the bureau of navigation, E. C. O'Brien, commissioner, assigned official numbers to the following lake vessels: Steam—Music, Grand Haven, 92.59 tons gross, 67.02 net, No. 92,421; Margretta, Cleveland, 18.54 tons gross, 9.88 net, No. 92,423; Penelope, Port Huron, 54.12 tons gross, 35.50 net, No. 150,582; Echo, Grand Haven, 15.79 tons gross, 10.01 net, No. 136,286; Don, Port Huron, 40.10 tons gross, 20.15 net, No. 157,342; Samuel Mitchel, Cleveland, 2,277.60 tons gross, 1,870.72 net, No. 116,495; Visitor, Sandusky, O., 70.11 tons gross, 37.16 net, No. 161,685; Mary Scott, Grand Haven, Mich., 25.66 tons gross, 14.66 net, No. 92,425. Sail—Alex Anderson, Port Huron, Mich., 738.49 tons gross, 728.18 net, No. 106,928; Indian Bill, Grand Haven, Mich., 32.46 tons gross, 30.84 net, No. 100,528; Athene, Port Huron, Mich., 7.58 tons gross, 7.21 net, No. 106,932. Unrigged—Red Jacket, Buffalo, 310 tons gross, 310 tons net, No. 56,605.

Wilson & Hendrie, proprietors of the Montague Iron Works, Montague, Mich., have just closed a contract with E. G. Crosby of Muskegon for a fore and aft compound marine engine, with cylinders 16 and 30 inches by 24 inches stroke, and also for a marine boiler, 8 feet in diameter by 12 feet long, tested for 130 pounds of steam, to be placed in a new steamer to be built by the Grand Haven Ship Building Company. The boat is for Crosby and others of Muskegon.

Mutiny on the Lakes.

The case of mutiny before United States Commissioner Fitzgerald of Buffalo is the first of the kind reported on the lakes. The sections of the United States statutes covering this crime were only made applicable to offenses on the lakes by an act passed Sept. 4, 1890, chapter 874, vol. 1, supplement to revised statutes. It says that every person who shall upon any vessel registered or enrolled under the laws of the United States, and being on a voyage on any of the great lakes or connecting waters, commit any of the acts mentioned in chapter 3 of title 70 of the revised statutes, shall be punished as mentioned therein. Section 2 of the act invests in circuit and district courts jurisdiction necessary for punishment of these crimes committed on the lakes.

Sections 5,359 and 5,360 of chapter 3, title 70, are laws relating to mutinous conduct which were made valid on the lakes by the act mentioned.

Section 5,359 says if any one of the crew of any American vessel on the high seas, or other waters within the admiralty and maritime jurisdiction of the United States, endeavors to make revolt or mutiny, or solicits, incites or stirs up any other of the crew to disobey or resist any lawful order of the master, or other officer of such vessel, or refuse or neglect proper duty on board thereof, or betrays proper trust, etc., or unlawfully confines the master, etc., he shall be punished by a fine of not more than \$1,000, or by imprisonment of not more than five years, or both.

Section 5,360 refers to the crew usurping or changing the command on board, and provides a penalty of \$2,000 and ten years imprisonment.

The case in question was reported by Capt. McFee of the schooner Nelson, towed by the steamer Folsom. While coming down Lake Huron, the captain ordered three sailors to scrape down the mainmast but one of them named O'Donnell attacked the captain, who defended himself though receiving a blow in the face. Later, two other men and O'Donnell made another attack on the captain, but this time he was ready for them and threatened to shoot the first man that laid hands on him. O'Donnell was arrested and his case is still pending.

Some Figures on Mutual Marine Insurance.

In view of the recent criticism by vessel owners upon the action of the marine insurance companies in incorporating an ambiguous clause in their policies, limiting their liability in case of grounding in the rivers, and the wide-spread talk with reference to the advisability of forming a vessel owners' mutual marine insurance company, the following statements compiled from the official reports of the companies named below, and containing the results of their marine insurance business during the year 1891, will be found highly interesting. The figures are taken from the twenty-fourth annual publication of the Fire Insurance Pocket Index, published by the Spectator Company, No. 14 Cortlandt street, New York.

AETNA INSURANCE COMPANY: Founded in 1819; original capital, \$150,000; present capital, \$4,000,000; present surplus, \$2,702,019; total assets, \$10,659,139; cash dividends actually paid in 1891, \$720,000, being 18 per cent. on the present capital.

This company collected in 1891 \$154,654 in marine premiums. Its payments on account of marine losses were \$30,621. Adding to the losses paid 20 per cent. of the gross marine premiums collected for the expense of doing business and we get a total payment on account of marine business of \$61,551, leaving a profit on this class of business of \$93,103, or over 60 per cent. of the gross marine premiums collected. This company collected in 1891 more than five dollars in marine premiums for each dollar paid in marine losses.

CINCINNATI UNDERWRITERS': This company collected in 1891 \$64,291 in marine premiums and paid \$29,707 in marine losses. Adding to the losses 20 per cent. of the gross premiums collected to cover the expense of doing the business, we get

total payments on account of marine business of \$42,565, leaving a net profit from the marine business of the company of \$21,726, or 34 per cent. of the gross marine premiums collected.

DETROIT FIRE AND MARINE INSURANCE COMPANY: This company collected in 1891 \$13,395 in marine premiums and paid \$4,718 in marine losses. Adding to the losses 20 per cent. of the premiums for expenses, gives total payments on account of marine business of \$5,998, which is 45 per cent. of the marine premiums.

GREENWICH INSURANCE COMPANY: This company collected in marine premiums in 1891 \$166,479 and paid \$75,028 in marine losses. Adding to the losses 20 per cent. of the premiums collected, to cover expenses, gives a total payment of \$108,323 on account of the marine business, leaving a profit on this class of business of \$58,156, which is 35 per cent. of the gross premiums collected.

NORTHWESTERN NATIONAL INSURANCE COMPANY OF MILWAUKEE: This company collected in 1891 \$8,228 in marine premiums and paid \$4,177 in marine losses. Adding to the losses 20 per cent. of the premiums, to cover expenses, gives a total payment on account of marine business of \$5,822, leaving a profit to the company of \$2,406, which is 29 per cent. of the gross marine premiums.

SECURITY INSURANCE COMPANY: This company collected in 1891 \$84,861 in marine premiums and paid \$51,141 in marine losses. Adding to the losses 20 per cent. of the marine premiums, to cover expenses, gives a total payment on account of marine business of \$68,113, leaving a profit to the company on this business of \$16,748, or 19¾ per cent. of the gross marine premiums.

Vessel owners can reflect with profit upon the following summary of the business of the six companies:

Companies.	1891. Marine premiums received.	1891 Losses paid.
Aetna	\$ 154,654	\$ 30,621
Cincinnati Underwriters'	64,291	29,707
Detroit Fire & Marine Insurance Company....	13,395	4,718
Greenwich	166,479	75,028
Northwestern National	8,228	4,177
Security	84,861	51,141
Totals	\$491,908	\$195,392

Allowing the usual extravagant 20 per cent. of premiums for expenses and adding it to losses paid, gives a total payment by the six companies of \$293,774, leaving a profit for the season of \$198,134, or more than 40 per cent. of the gross premiums.

Allowing a mutual company 10 per cent. of premiums for expenses of doing business, which is certainly ample, a mutual company which collected the same amount in marine insurance as was collected by these six companies in 1891 (\$491,908) could pay the marine losses incurred by these companies, (\$195,392) defray all expenses of doing business, (\$49,190) and have \$247,326, or more than 50 per cent. of its gross premiums to return to its members.

Perhaps the most curious salvage case on record is that of the ship Two Friends, which stranded on the coast of Cuba and was abandoned by her crew. Another ship, the John Blake, met with a similar fate, and her crew, in attempting to find a landing place, came across the stranded Two Friends, which they managed to get off and to navigate to England without further mishap. The judge who tried the case decided that salvage services had been rendered, but of only ordinary difficulty and merit, inasmuch as the crew of the John Blake saved the Two Friends in order to save their own lives. The owners of the John Blake, of course, got nothing, but the salving crew received \$1,750 out of the total value of \$6,185.—Fairplay.

Send 75 cents to the MARINE REVIEW for a binder that will hold 52 numbers.

CHICAGO LAKE INTERESTS.

WESTERN OFFICE, MARINE REVIEW,
No. 13 Western Union Building, CHICAGO, ILL., May 26.

There seems to be good grounds for believing that better business will be done after June 1. If the wet country roads get dried out a little so that farmers can haul their corn to market and sell it to the shorts on the Board of Trade here, who are crying for corn as loudly as the children of Ireland did in '47, there will be any quantity of corn in Chicago elevators by June 1. After the corner has been ended by the close of the month all this corn will have to go forward at some figure, and a big business for vesselmen ought to result. Wheat, too, shows a disposition to go forward, and if wheat and corn both get started at the same time all the present dullness will be recompensed by a big boom.

The water transportation to the world's fair is a mystery to the uninitiated. Over a month ago the contract was awarded to the so-called Henry syndicate, but it is not known yet if the contract has even been signed. Mr. Henry announced that the syndicate would have boats in service by May 1, but no boats have yet appeared. In the meantime the outside boats are preparing for a lively season. The *Ivanhoe*, Chief Justice Waite and *Corona* will land at a pier just north of the fair grounds. Piers will also be constructed south of the grounds. Boats are also landing at the fair piers. It is said that the syndicate is insisting that the world's fair people protect the syndicate's boats from this outside competition, and that is where the hitch comes in. The fair directors disclaim responsibility for piers outside the park grounds, and say the syndicate must fight its own battles. It now looks as if the exclusive privilege would amount to nothing this season. At any rate the outside boat owners have recovered from their panic and are in for a fight with the syndicate. It will cost \$100,000 for proper facilities down town and a viaduct over the railroad tracks on the lake front, and the world's fair in the present state of its finances is not likely to expend a dollar on this most important work. Until that is done owners of the outside boats will have as good a chance as anyone for a good share of the business.

When the *Maritima* is launched by the Chicago Ship Building Company next week, the occasion is going to be made a notable one by the reorganized company. Invitations will be issued, and Colehour, on the Calumet, will have a gala day. Emmons Blaine, son of the secretary of state, has taken a very active interest in ship building, and as president of the company he is proving himself a hustling business man.

If the marine reporters of the various lake papers want to see a marine reporter in fiction the ought to get John McGovern's "David Lockwin," and then read what wonderful things a marine reporter can do. This particular marine reporter could not speak a correct sentence, he was the toughest of the tough, was elected to the legislature by the Seamen's Union, made up his accounts of wrecks out of dime novels and was generally a very curious individual. His only redeeming trait was that he died as the result of a good deed. Your correspondent took McGovern to task for drawing such a picture of marine reporting, but Mr. McGovern stoutly insisted that his picture was drawn from life and was a fair representation of a marine reporter many years ago on the Chicago Tribune. It is almost needless to say that this marine reporter is now dead, else he would be hunting the novelist with a double-barreled shot gun. Nevertheless, "David Lockwin" is well worth reading, and the shipwreck of the *Africa* is very graphic. If marine reporters do, as Mr. McGovern seems to think they do, a very fair description can be cribbed right out of this novel on the next shipwreck that comes around.

The Increased Draft of Water.

Special Correspondence to the MARINE REVIEW.

DETROIT, Mich., May 26.—A captain of a lake steamer defends the St. Mary's Falls canal officials against the charge that they have been over zealous in their efforts to protect the lock from injury through vessels overloading. The captain is quoted as saying: "The water fluctuates constantly, and the depth today may not be that of tomorrow." What looks strange in this matter, however, is that the water should have been reported at 13.6 every day for more than two weeks, although it is asserted that during that time a number of boats were locked through drawing 13.8 and 13.9, and furthermore, that the second day after the subject was brought up at the meeting of the Lake Carriers' Association in Cleveland, the water was reported 13.8 and has not since been reported lower. If boats could have been permitted to carry 100 to 150 tons more freight each trip without endangering the lock, it can easily be figured what a heavy loss the owners have sustained. If this loss was unnecessary there should be some vigorous action taken before the question is dropped. That no injustice should be done towards Supt. Lynch or any other official, it is highly proper that the proposed investigation be made as soon as possible.

Vessel owners and masters are to be congratulated on the rise of water in the rivers which appears to have come to stay, for the inclination is still upward. It is thought that boats drawing 16 feet can now come over Grosse point crossing.

A striking example of the ease with which false reports relating to marine matters can be originated and put in circulation, came out here on Monday.

The story was told and generally credited, that the Norwegian steamer *Wergeland* had been sunk by collision near Marine City and that her spars and funnel could be seen above water. All this was related in good faith by one of the officers of a boat which arrived here that morning. It was not yet daylight when he passed the supposed sunken steamer, the river was covered by a low dense bank of fog and the man actually saw the spars and smokestack of the *Wergeland*, but she was lying at anchor, her hull completely hidden by the fog. It was a case of optical illusion, so frequent and puzzling on the water.

Business at the Detroit dry dock is lively these days. As fast as a boat goes out another is ready to take her place. Frequently two at a time are taken in. The new force of calkers are doing excellent work.

Heavy Grain Movement Through Canada.

Special Correspondence to the MARINE REVIEW.

KINGSTON, Ont., May 26.—During the last week grain has been fairly pouring in here from the west, and day and night the forwarders had to work in order to give dispatch. Word from Montreal has been received to the effect that at present, even though the rebate is not allowed, there are over 200,000 bushels of Montreal grain stored at Ogdensburg, and that much is being shipped via the Erie route. Montreal thus loses considerable trade because there is no elevator in Kingston. Had there been an elevator here the surplus grain would be stored, and the rebate not only saved but the trade retained. Heretofore the trade at Montreal was divided as to the advisability of the government allowing the rebate on grain stored at Ogdensburg; now it is a unit in advocating elevator capacity in Kingston. Certainly the grain leaves here as quickly as it comes, but a difficulty exists when there are no steamships into which to empty the barges. The facilities for elevating in Kingston and Portsmouth were never so thorough as they are at present.

Lumber shipping at Ottawa is very quiet this spring. There are about fifty barges lying idle waiting for orders from American ports. Scarcely any such orders have been received and it is feared there will not be many. The forwarders are losing considerable money as the crews of the barges have to be paid, work or play. The presidential campaign is blamed for the dull spell. The quantity of sawn lumber shipped to Europe thus far, however, is large. The quantity is 18,600,000 feet, all of which went to Montreal in barges.

The Canadian cruiser *Constance*, built by the government to protect the fisheries between Anticosta and Quebec, has passed here for her destination. She is a pretty little craft, and is supposed to be able to overhaul the fleetest smuggler with ease. Her speed is placed at 15 miles an hour and her compound engines furnish 320 horse power. She is fitted up with speaking tubes, and is commanded by Captain George May, who has sixteen officers and men.

Young Naval Constructors for American Yards.

Special Correspondence to the MARINE REVIEW.

WASHINGTON, D. C., May 26.—The first three of the students sent to Europe by Secretary Tracy for special training in their profession of naval construction have just completed their course of study in Glasgow. One of the three assistant naval constructors, P. W. Hibbs of Minnesota, has just arrived and has reported for duty at the navy department, whence he will shortly be ordered to duty at Norfolk as assistant to Constructor Bowles. Mr. Hibbs is a graduate of the Naval Academy, where he stood No. 2 in his class and subsequently became an assistant engineer. He took a special course at Glasgow for preparation for work in designing, and therefore did not come into competition with the members of the regular class. His instructors state that if he had he would undoubtedly have carried off the highest honors. Two other construction students, Messrs. G. H. Rock of Michigan and T. F. Ruhm of Tennessee have also completed their course and taken their degrees at the university and are now returning. In their class, which was composed of ten members, Mr. Ruhm stood number one and took the prize for the highest honors, and Mr. Rock passed number two. These two young officers will be ordered, one to the navy yard, New York, and the other to the navy yard, Mare island. Two other Glasgow construction students, Naval Cadets L. Spear of Ohio and R. M. Watt of Pennsylvania, are about returning to the United States to get five months' experience in our shipbuilding yards. The time has now come when a young constructor may acquire experience in our own yards quite as valuable as that to be obtained in European yards. These young men will return to the University of Glasgow to complete their course next year. The authorities speak in the highest terms of the successful work performed by all American students.

The American Steel Barge Company recently wrote to the treasury department in regard to the free entry under section 8 of the tariff act of materials and machinery for use in the construction of vessels at Everett, Washington, where the company has established a large shipyard. Assistant Secretary Spaulding has informed the company that rivets, iron or steel, can not be admitted under the section in question; that the materials enumerated in that section can be admitted free whether they are to be used in the construction of the hull or of the engines and boilers; that the term "equipment," as used, is not understood to include donkey engines, pumps, windlasses, steam steerer and other machinery, but does include anchors, chain cables, boats, life-saving apparatus, nautical instruments, signal lights and similar articles.

MARINE REVIEW.

DEVOTED TO THE LAKE MARINE AND KINDRED INTERESTS.

JOHN M. MULROONEY, ... } PROPRIETORS.
F. M. BARTON, ... }
HOMER J. CARR, ... Associate Editor and Manager Chicago Office,
210 South Water Street.

Published every Thursday at No. 516 Perry-Payne Building, Cleveland, O.

SUBSCRIPTION—\$2.00 per year in advance. Convenient binders sent, post paid, 75 cents. Advertising rates on application.

Entered at Cleveland Post Office as Second-class Mail Matter.

IN another part of this issue there is presented for the consideration of vessel owners some figures showing profits of insurance companies in marine business. The information is taken from official statements and should be the means of at least demanding attention from those among the vessel owners who have not given proper study to the subject of mutual insurance. For years past the vessel owners of the lakes have protested against a system of insurance that is attended by what they term unnecessary expenses. Some of the recognized leaders among the owners have declared repeatedly that the business as it is now managed by stock companies has not been adjusted so as to cope with advancement in the way of reduced expenses in other lines of the carrying trade, and these same owners have sought and found relief to some extent in the English Lloyds. The question of mutual insurance has not, however, been given proper consideration by them. A movement in this direction is now on foot in more formidable shape than ever before, and owners in all parts of the lakes who are not bound by insurance ties should fit themselves for a thorough consideration of the question when the proper time arrives for a meeting.

A REPORT from Washington says the Frye bill, which met such opposition from the shipping interests all over the country shortly after the opening of the present Congress, will be reported again in a few days with amendments from the Senate committee on commerce. This is hardly correct, at least as far as the present session of Congress is concerned, as Senator Frye, who is chairman of the commerce committee, promised the officers of commercial bodies in leading shipping ports that they should be given a hearing before the bill is again reported, and gave them to understand that it would not be reported again during the present session. It is claimed that the officers of the revenue marine who prepared the bill have gone over it and have stricken out some of the objectionable parts, mainly sections 83 and 85, which as originally framed would render most old boilers in merchant vessels useless. These sections were not the only objectionable features of the bill. It was a measure full of radical requirements. No board of revenue marine officers should be permitted to make laws for merchant vessels.

SIX companies engaged in the insurance business on the lakes show a profit on this class of business for the season of 1891 of \$198,134, or more than 40 per cent. of the gross premiums. What more forcible argument is needed in favor of mutual insurance?

Final Appropriations in the River and Harbor Bill.

Of immediate appropriations aggregating \$22,470,118 in the river and harbor bill as it passed the Senate the lakes get \$2,941,779. The bill, which has now passed both houses, will be referred to a conference committee, and it may be that the reduction from \$500,000 to \$375,000 made by the Senate in the first appropriation for the 20 and 21-foot channel throughout the lakes will be regained in conference, but outside of this no other changes bearing upon lake appropriations may be expected. A full list of the lake items in the bill, prepared from final amendments in the Senate, is printed below.

The \$2,965,000 provided for the 20 and 21-foot channel in addition to the \$375,000 appropriated, enabling the government engineers to enter into contracts for the entire work, is the most important feature of the bill to the lakes. Under this plan a saving of \$768,000 has been made already in the contracts

for the St. Mary's lock and canal, and \$900,000 has been saved on the Hay lake channel work.

For a ship channel 20 and 21 feet in depth, and a minimum width of 300 feet in the shallows and connecting waters of the great lakes between Chicago, Duluth and Buffalo.....\$ 375,000
Providing that contracts for the entire work may be made, not to exceed, however, \$2,965,000, exclusive of amount appropriated.

The following shows appropriations for different harbors and rivers, for continuation of work, except where name is prefixed with a *, which refers to work to be completed, commenced or repaired;

Buffalo, N. Y.....	\$ 225,000
Charlotte, N. Y.....	25,000
Dunkirk, N. Y.....	25,000
Great Sodus Bay, N. Y.....	15,000
*Little Sodus Bay, N. Y.....	6,000
Ogdensburg, N. Y.....	40,000
Oswego, N. Y.....	40,000
*Rondout, N. Y.....	5,000
Tonawanda harbor and Niagara River, N. Y.....	75,000
Erie, Pa.....	40,000
Ashtabula, O.....	70,000
Black River, O.....	20,000
Cleveland, O.....	100,000
Fairport, O.....	30,000
Huron, O.....	15,000
*Sandusky, O.....	41,712
Toledo, O: Straight channel.....	200,000
*Vermillion, O.....	2,000
*Conneaut, O: Relocation channel and construction new piers	50,000
Port Clinton, O.....	10,000
Michigan City, Ind: Outer harbor.....	30,000
*Michigan City, Ind: Inner harbor.....	15,000
*Calumet Harbor, Ill.....	15,000
*Chicago, Ill.....	72,000
Waukegan, Ill.....	25,000
Charlevoix, Mich., and entrance to Pine lake.....	10,000
Frankfort, Mich.....	10,000
Grand Haven, Mich.....	90,000
Grand Marais, Mich: Harbor of refuge.....	30,000
Manistee, Mich.....	50,000
Holland, Mich.....	5,000
Monroe, Mich.....	10,000
Muskegon, Mich.....	75,000
Ontonagon, Mich.....	20,000
*Pentwater, Mich.....	5,000
Sand Beach, Mich., harbor of refuge.....	150,000
St. Joseph, Mich., including Benton Harbor canal.....	71,000
South Haven, Mich.....	10,000
White Lake, Mich.....	5,000
Marquette, Mich.....	80,000
Ludington, Mich.....	5,000
Saugatuck, Mich.....	5,000
Ahnapee, Wis.....	7,000
Green Bay, Wis.....	25,000
(\$5,000 to be expended on the Fox river below DePere.)	
Kenosha, Wis.....	15,000
Kewaunee, Wis.....	30,000
Manitowoc, Wis.....	28,000
Milwaukee, Wis., harbor of refuge.....	75,600
*Milwaukee, Wis.....	14,000
*Port Washington, Wis.....	6,500
Racine, Wis.....	25,000
Superior and St. Louis Bays, Wis.....	70,000
Sheboygan, Wis.....	25,000
Ashland, Wis.....	45,000
Two Rivers, Wis.....	3,000
*Sturgeon Bay Canal, Wis., harbor of refuge.....	5,000
Oconto, Wis.....	3,000
Pensaukee, Wis: Unexpended balance of former appropriation....	
*Duluth, Minn.....	125,000
(Of which \$45,000 may be used on St. Louis river above Grassy point.)	
Grand Marais, Minn.....	10,000
Agate Bay Minn.....	50,000
Saginaw river, Mich.....	75,000
(\$5,000 of which is to be used on the west channel at Bay City and \$35,000 above Bay City.)	
Black river, (mouth) Mich.....	10,000
*Clinton river, Mich.....	8,564
*Rouge river, Mich.....	11,690
Detroit river, Mich., from Detroit down.....	30,000
Thunder Bay river, Alpena, Mich.....	10,000
Black river, Port Huron, Mich.....	10,000
*Sixteen foot channel, Keweenaw bay to Lake Superior.....	50,000
Rouge river, Mich., turning basin.....	5,000
Menominee river, Wisconsin and Michigan.....	20,500
For making free the Sturgeon bay and Lake Michigan ship-canal....	81,833
For examination and survey of a canal, connecting Lake Superior and the Mississippi river.....	10,000
For survey and examination of location of ship canal from Lake Erie to the Ohio river.....	10,000
Total	\$2,941,799

Preliminary examinations are ordered at the following places: Ship canal from Toledo to Cincinnati, O.; Wolf river harbor, Lake Michigan; outer harbor at mouth of Calumet river; Pine river, St. Clair, Mich.; Belle river, Marine City, Mich.; Hammond bay, Lake Huron, Mich.; Sebawaing river, Mich.; Dunkirk harbor, N. Y., and Green Bay, Wis.

Grain at Chicago and Duluth.

Stocks of grain at Chicago and Duluth on Monday, May 23, were as follows:

	Chicago.		Duluth.
	Wheat, bu.	Corn, bu.	All wheat, bu.
In store.....	6,803,618	1,054,680	5,511,220
Decrease last week.....	488,102	38,460	798,443
Excess over same time last year...3,192,472	.....	.....	2,957,752
Decrease compared with same time last year.....	360,685	.....	.....

In addition to the above there is 847,230 bushels of oats, 241,624 bushels of rye and 16,951 bushels of barley in store in Chicago.

The Wadena on the Mediterranean.

Dr. H. H. Powell, the physician who accompanies Mr. Wade on his voyage with the Wadena, writes from Jaffa, April 23: "After making a few little alterations at Alexandria, we went to Jaffa. From here we go to Beyrout for the Damascus visit, then to the Grecian Archipelago on to Constantinople, afterwards to the Adriatic, staying a few days at Venice. After this it is probable that a cruise will be taken to the North Sea in time to witness the midnight sun. The performance of the yacht is very satisfactory, as she recovers from rolling very promptly. On her Atlantic voyage in two instances she ran 2,000 miles without stopping her engines."

The Sub-Marine Torpedo Boat.

The performance of the sub-marine boat illustrated in the last issue of the REVIEW is attracting some attention in the navy department. Commander Folger, chief of the bureau of ordnance, went to Detroit from Washington to make an official report on the craft. He was in Detroit several days and repeated tests were made for his benefit. Commander C. H. Davis, office of naval intelligence, has requested a copy of the REVIEW containing illustrations of the boat, and it is expected that the craft will be shown in the annual publication of that office.

Against Free Ships.

As a well defined statement of the position of shipping interests on the lakes as well as the coast against the present agitation in Congress for free ships, attention is directed to a memorial to Congress prepared by Hon. George H. Ely of Cleveland and adopted a few days ago by the Cleveland Board of Trade. Similar action should be taken by commercial organizations throughout the country. The memorial is as follows:

To the Honorable Senate and House of Representatives, Washington:—The Cleveland Board of Trade, representing large and important interests depending upon the existing conditions of registry of American shipping, hereby beg leave most respectfully but earnestly to remonstrate against the legislation proposed by the bill reported from the committee on merchant marine and fisheries of the House of Representatives giving American registry to foreign-built ships. This legislation, we respectfully submit, would inaugurate a policy which the fathers of the republic steadily refused, and which the legislation of over one hundred years of national life has never yet sanctioned. As does every other maritime nation, we have always kept our own flag over our own coasting and internal trade. That flag has hitherto covered the distribution, among Americans, of all American products. Under this policy there has been a full supply of American built ships, steam and sail, for our coasting and internal trade. Extensive shipbuilding plants have been laid down on the lakes as well as on our ocean coasts, in which American labor, skill, and invention have turned out ships for the naval and marine service that are equal to the best products of foreign shipyards. If, in the period, between 1850 and 1860, of transition from the wooden to the iron ship, and later to the steel ship, our flag lost its rightful place on the ocean in the foreign commerce because we had no iron or steel industries, and because for four years, Alabamas from British shipyards swept our flag from the ocean, it can not be a matter of surprise that Great Britain has been able to perpetuate the maritime supremacy so obtained. Add to these circumstances the low range of

Great Britain's wages, which puts afloat her shipping at a minimum cost, and the fact of large mail compensations and subsidies for the support of her great lines to every quarter of the globe—support that has but once been given to American commerce on the ocean and then quickly withdrawn—and the infrequency of our flag in the world's carrying trade is fully accounted for.

In the face of all these obstacles we have now afloat, turned out of American shipyards, 4,684,759 tons of shipping engaged in our internal, coasting and foreign commerce, and this is more than half the total shipping of Great Britain. One-quarter of this total American shipping, 1,154,870 tons, is now afloat on the great lakes. This shipping, which in style, speed and freight carrying capacity, is beyond anything afloat upon any other inland sea of the globe, has been launched from our lake shipyards. These shipyards employ millions of capital and thousands of mechanics. The finished ship, from the keel to the bunting at the peak, on which are inscribed the stars of the Union, is the product of the American forest, mine, furnace, mill and shop and has been paid throughout at the American rate of wages.

The sailing as well as the building of the ship has vindicated the American policy of defending our coasting and inland trade. The cost of transportation by American built ships has been steadily reduced, until the movement of our primary products on the lakes has been done at rates unapproachable by railroads. The 9,041,213 tons of freight which passed through the St. Mary's canal in 1890 was moved an average distance of 800 miles, at 1.3 mills per ton per mile. The Interstate Commerce Commission reports the average of rail transportation in the United States to be in 1889, 9.22 mills per ton per mile.

American shipbuilding, under our existing laws, has not only fully met the wants of our coasting and inland commerce, but it is now advancing at a rate that will cover all future necessities. In 1886 there were on these lakes twenty-one steamers, having each a registered tonnage of over 1,500. In 1891 there were 126 of that capacity. In 1886 there were on the lakes only six steel steamers registering 6,459 tons. In December, 1891, there were eighty-nine steel steamships registering 127,624 tons, valued at \$14,500,000. To this fleet of large steel steamships thirty-two more of equal capacity are to be added, which are now leaving the ways of our shipyards. These great facts, which we beg leave to present to your honorable bodies, indicate conditions of American ship building that ought not to be disturbed. The legislation just now perfected, which gives American registry to two 10,000 ton ships already mainly owned by American capital, conditioned on the construction in our own shipyards of two other ships of the same capacity, to be at the service of the government as cruisers in time of war, is exactly in line with the principle and policy for which we contend.

A wise national policy, entered upon at the beginning of our national life, and looking to independence on the sea as well as on land, should not now be reversed. That policy, in the interest of American commerce, prescribed the limitation of American registry to American ships. To remove that limitation now, when American ship building under the American range of wages and in the absence of the subsidies which secures so much of the carrying trade of the ocean to the British marine, is giving to the American people the cheapest transportation in all the world, would not only strike a blow to vast home industries but it would be a discrimination in favor of foreign interests that would be unattended by any collateral or incidental advantage to our own people.

Trade Notes.

The steamer T. W. Snook, Capt. Crockett, broke a strap on the upper connection near the islands and sailed back to Cleveland for repairs, which were made by the River Machine Company in very short time.

On the steamship wharves where heavy gang planks are used, the wharf drops manufactured by the American Ship Windlass Company of Providence, R. I., have been found to be the simplest and most effectual.

Capt. Frank Perew, owner of steamer A. P. Wright, the boilers of which have been fitted with Tucker's patent bridge wall, says that on a Chicago trip a saving of not less than 25 tons of coal was made. He adds that with this device the boilers steam better and the smoke coming from the stack is of steel color instead of black and that there is less of it. By use of this wall the fuel is burned and not converted into smoke. H. G. Trout & Co., Buffalo, are agents of the patentee for the lakes.



Capt. I. Lyons took command of the steamer J. F. Eddy at Detroit last week.

The I. Stephenson Company of Escanaba has purchased the schooner City of Chicago for \$8,250.

Capt. Edward McGregor succeeds Capt. Martin as master of the Roanoke. Capt. Martin resigned on account of ill health.

The burning of the elevators at Oswego can not materially affect that town as they were only used for Canadian barley which trade is now almost entirely cut off.

A reward of \$100 is offered for the recovery of the body of Capt. Robert Hayes, who was drowned last Thursday off Port Stanley. Information may be sent to Mrs. Hayes, No. 290 Massachusetts street, or to Connolly Brothers, Buffalo.

Col. Ludlow, United States light-house engineer, and Commander Heyerman, light-house inspector, are engaged in completing the work of constructing range lights in the St. Mary's river and the announcement that the lights are ready for service may be expected shortly.

Freight Agent H. R. Rodgers of the Detroit and Cleveland Steam Navigation Company, who takes a new position with the "Soo" railway, was given a most cordial parting by his associates in Cleveland Monday. A gold watch and chain and other valuable gifts accompanied the farewell.

The statement that the small steamer W. P. Thew, partly destroyed by fire at Chicago recently, was worth \$30,000 is erroneous. The Thew was valued in Lloyds last season at \$18,000 and although no value is given in the present register it is understood she will be classed no higher.

Unless favored by weather conditions that would tend to increase the draft of water at Racine, boats bound to that port will not be safe in loading more than a trifle deeper than 12 feet. The steamer Thomas H. Smith, drawing but 12 feet 4 inches grounded outside the piers a few days ago, and narrowly escaped injury.

Northern Pacific railway officials were in Superior a few days ago and talked with Capt. McDougall. As a result it is again claimed that the company will build a line of whalebacks for service between Buffalo and the head of Lake Superior. The barge company and the Northern Pacific people are very closely related, but the rumor of Northern Pacific boats has come around so regularly of late that it must be taken with suspicion.

Capt. Robert Hayes, who was drowned from his vessel, the Ogarita, near Port Stanley, Lake Erie, Thursday, was an old lake captain and bore an excellent reputation. He had sailed

the Ogarita for some time and was formerly master of the barge Sunshine. He once sailed the schooner Kate Kelly and owned part of her. In those days he lived in Oswego. He lived at No. 290 Massachusetts street, Buffalo, and leaves a family there. He was about sixty years of age.

A note from Buffalo says the steamer Rochester took 27,000 bushels of corn from that port to Buffalo a few days ago, the grain being worth 20 cents a bushel more in the west than it was at Buffalo, owing to a corner in the May option. "Only a few years ago," said Capt. Peter Minch in this connection, "I took a cargo of corn from Chicago to Buffalo in the steamer William Chisholm. Before unloading it, I was ordered back to Chicago and again to Buffalo. Manipulation in the market was the cause, but the owners of the vessel made no complaint, of course, as long as they were getting a good freight."

With the opening of the present week the sidewheel steamer Cambria, 1,000 tons, began service in the new line of the Port Arthur and Duluth Packet Company, between Port Arthur and Duluth. She took a full list of passengers and 300 tons of freight on her trip from Owen Sound to Port Arthur. She will make tri-weekly trips on the new route, connecting at Duluth with the different railways for St. Paul, Minneapolis and Chicago and at Port Arthur with the Duluth & Western Railway and the steamship line and railway of the Canadian Pacific Company. The Cambria has berths for ninety first class passengers and Canadian and American certificates of inspection for 334 passengers in all.

The editor of the MARINE REVIEW has examined Patterson's Nautical Dictionary thoroughly, and with pleasure recommends it to any one having any connection with marine affairs.

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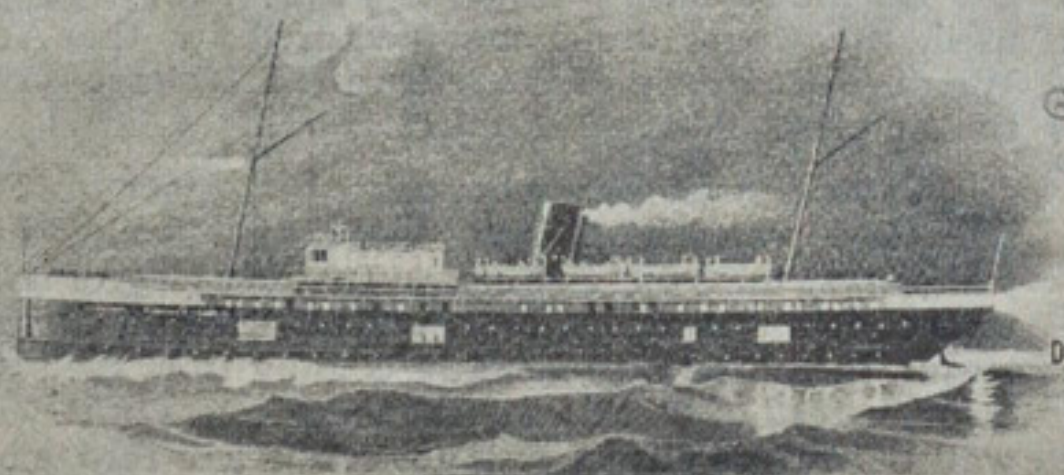
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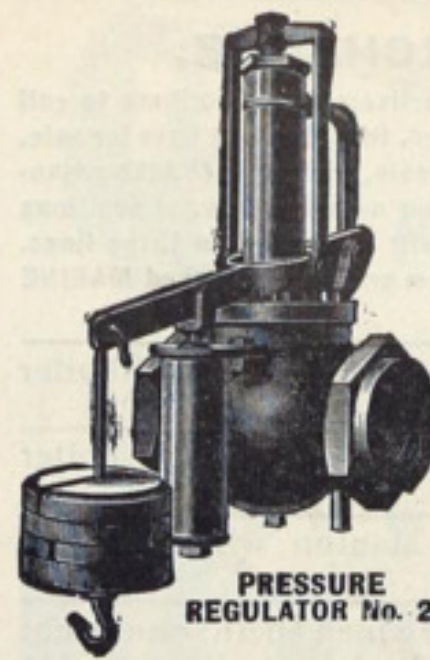
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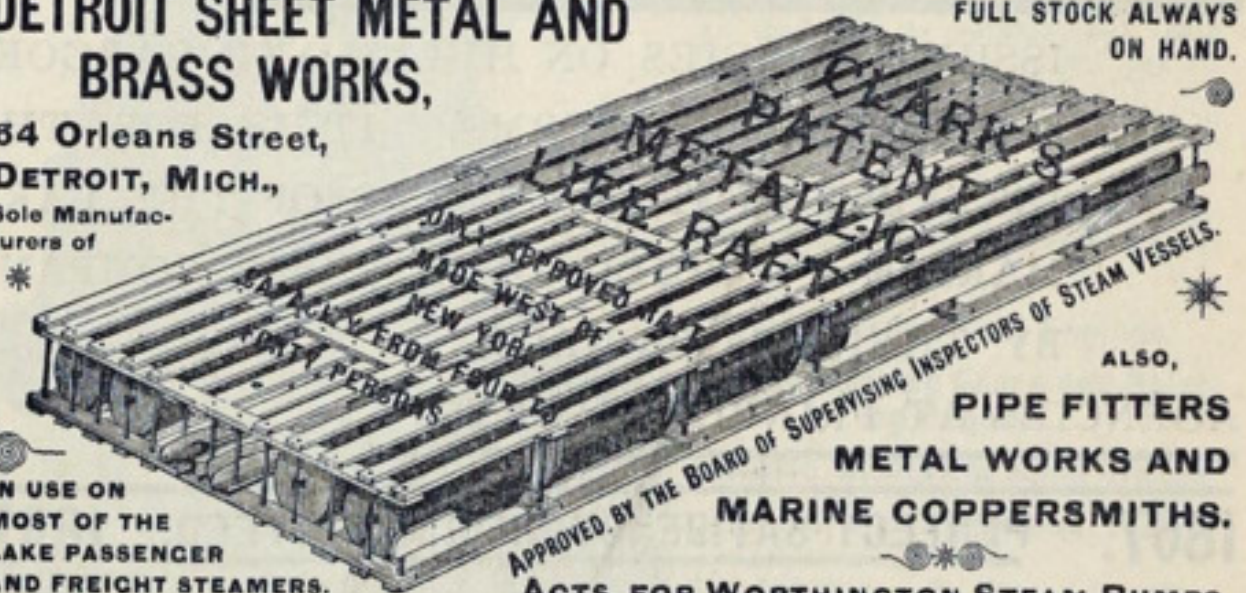
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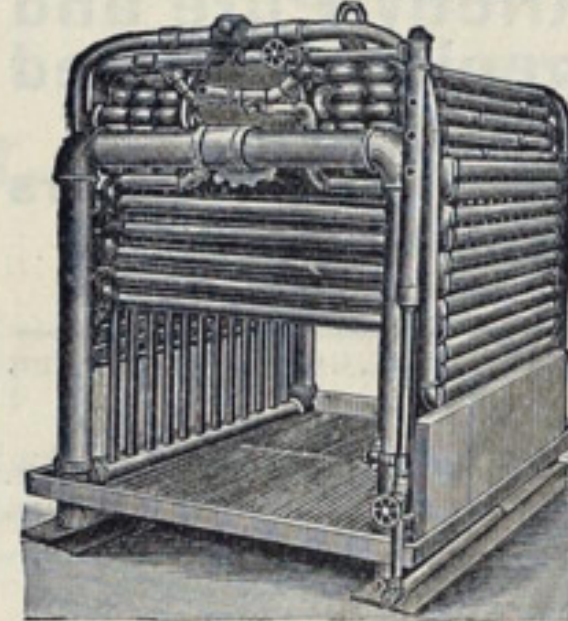
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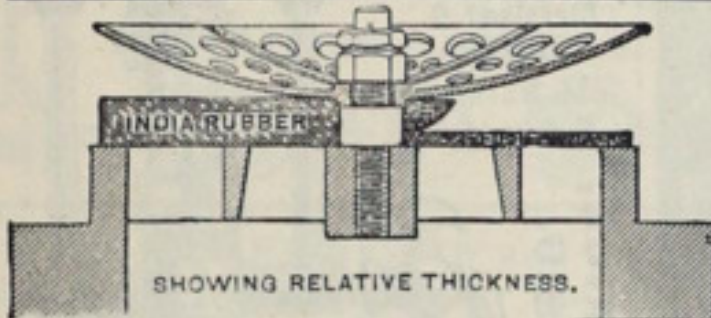
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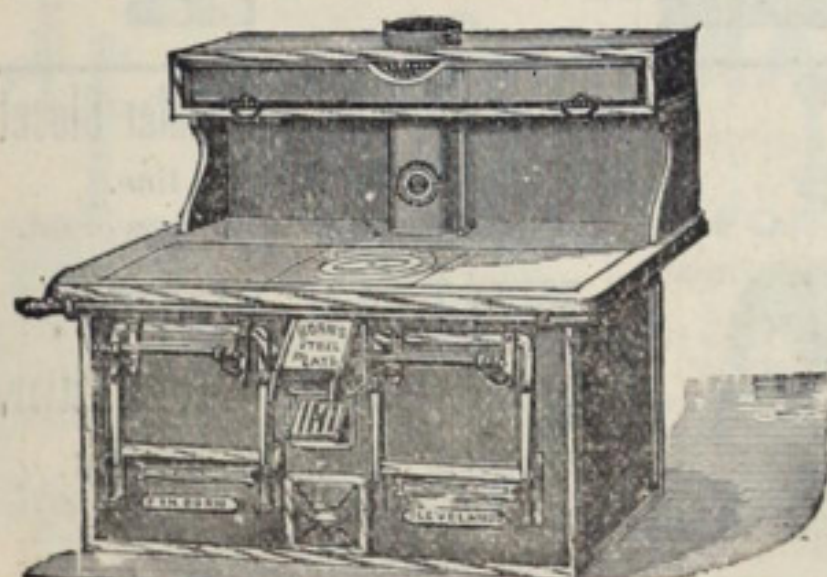
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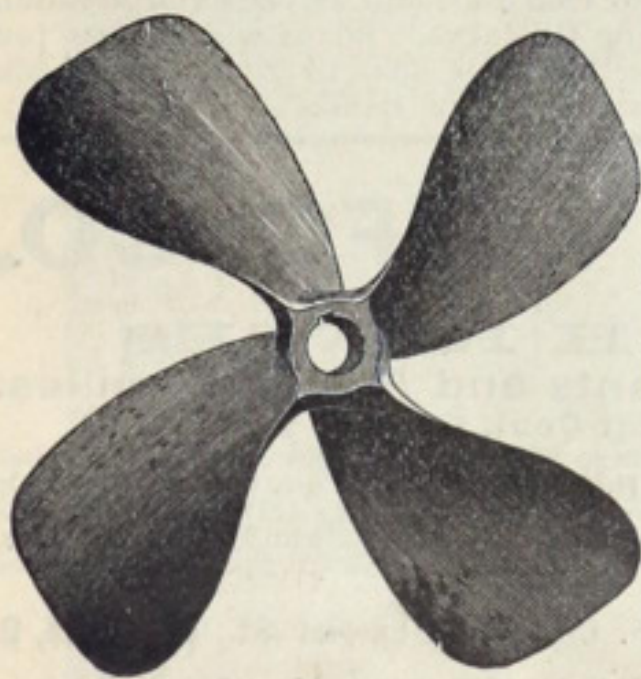
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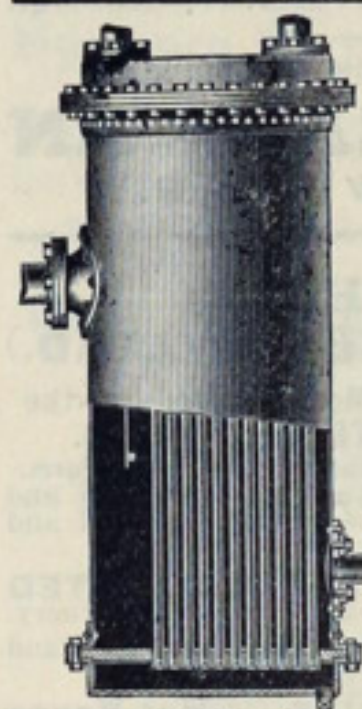
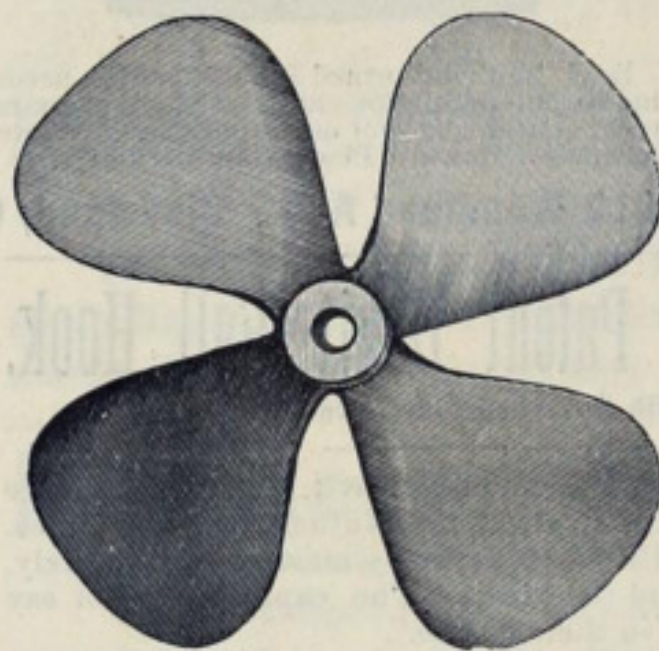
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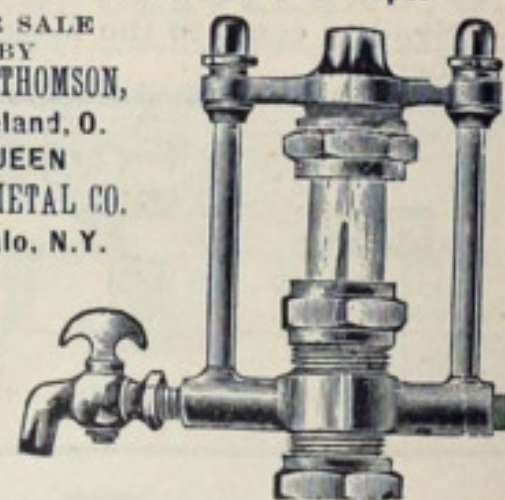
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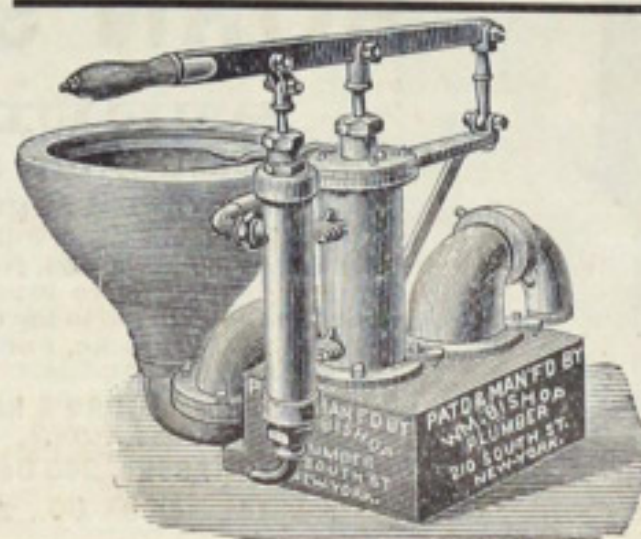
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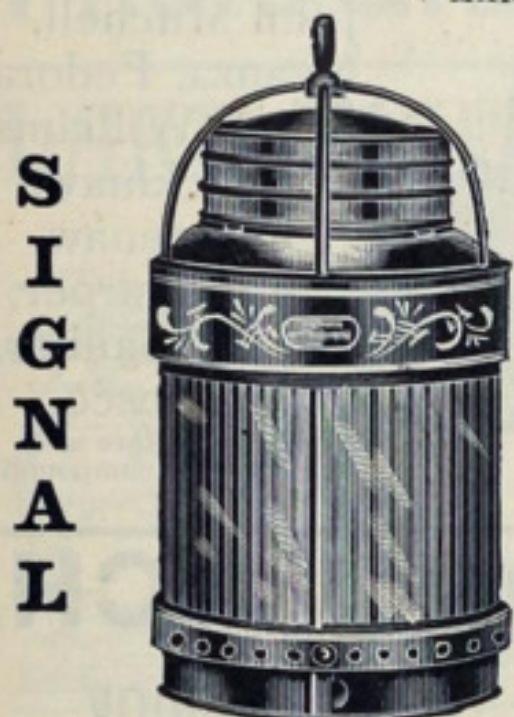
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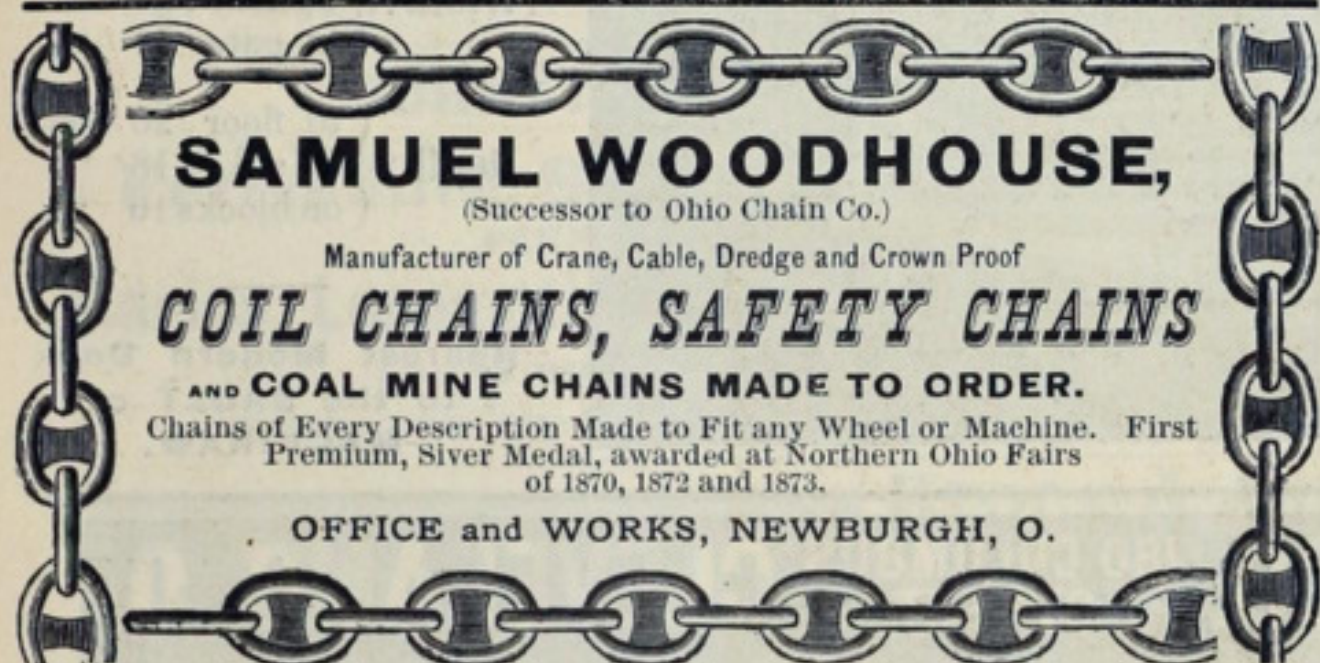
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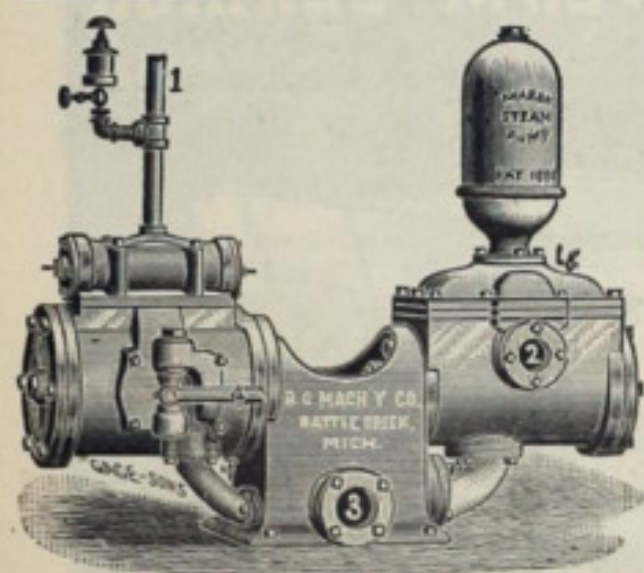
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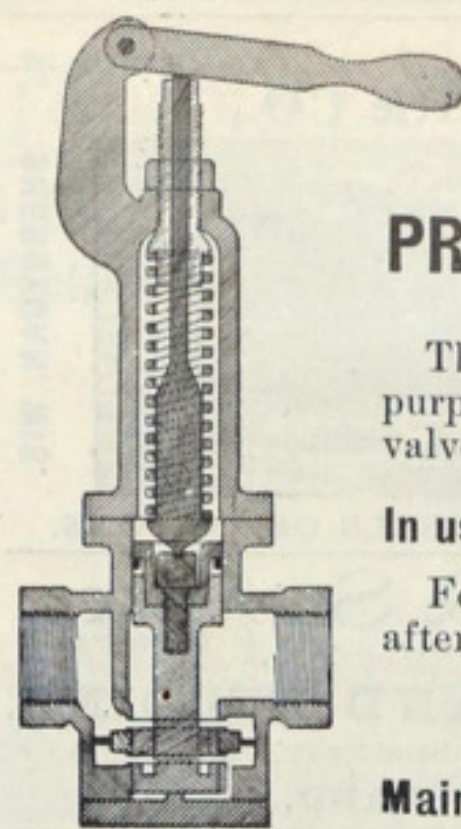
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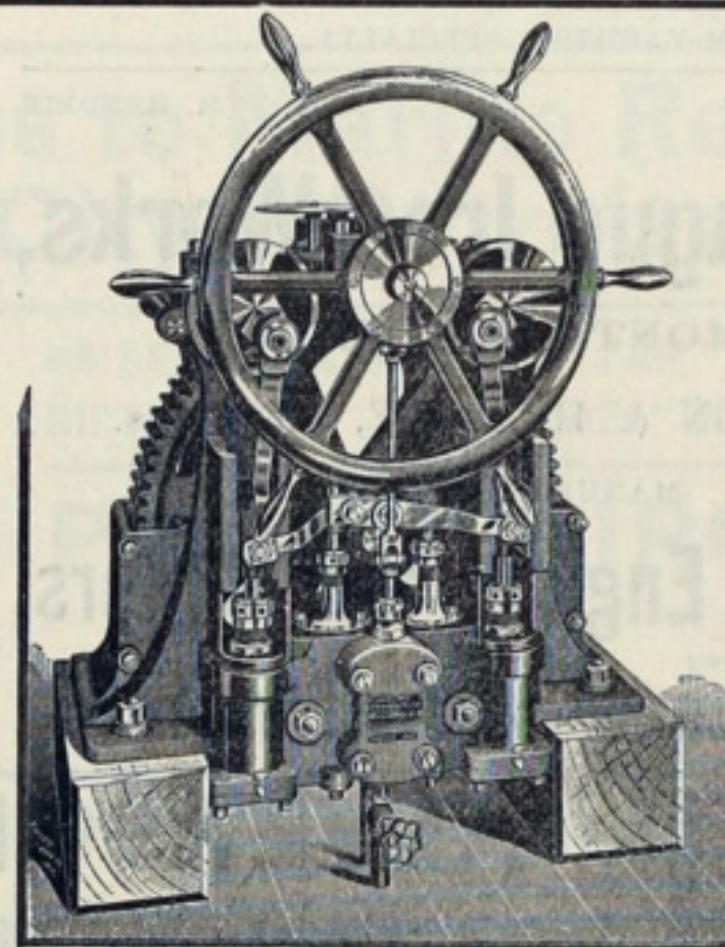
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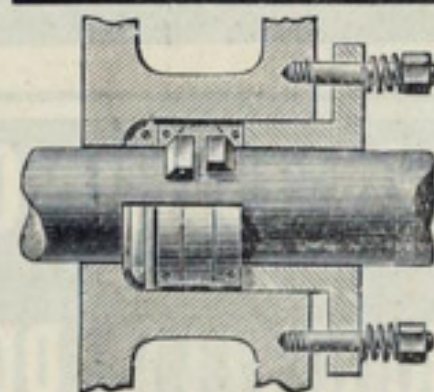
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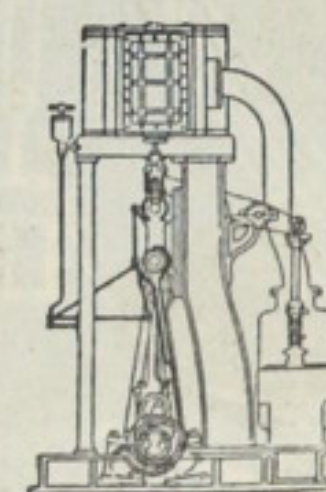


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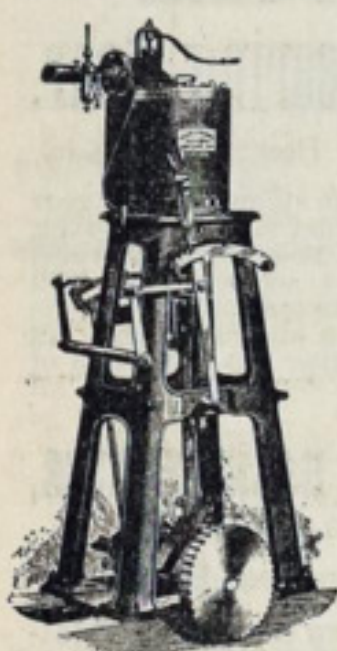
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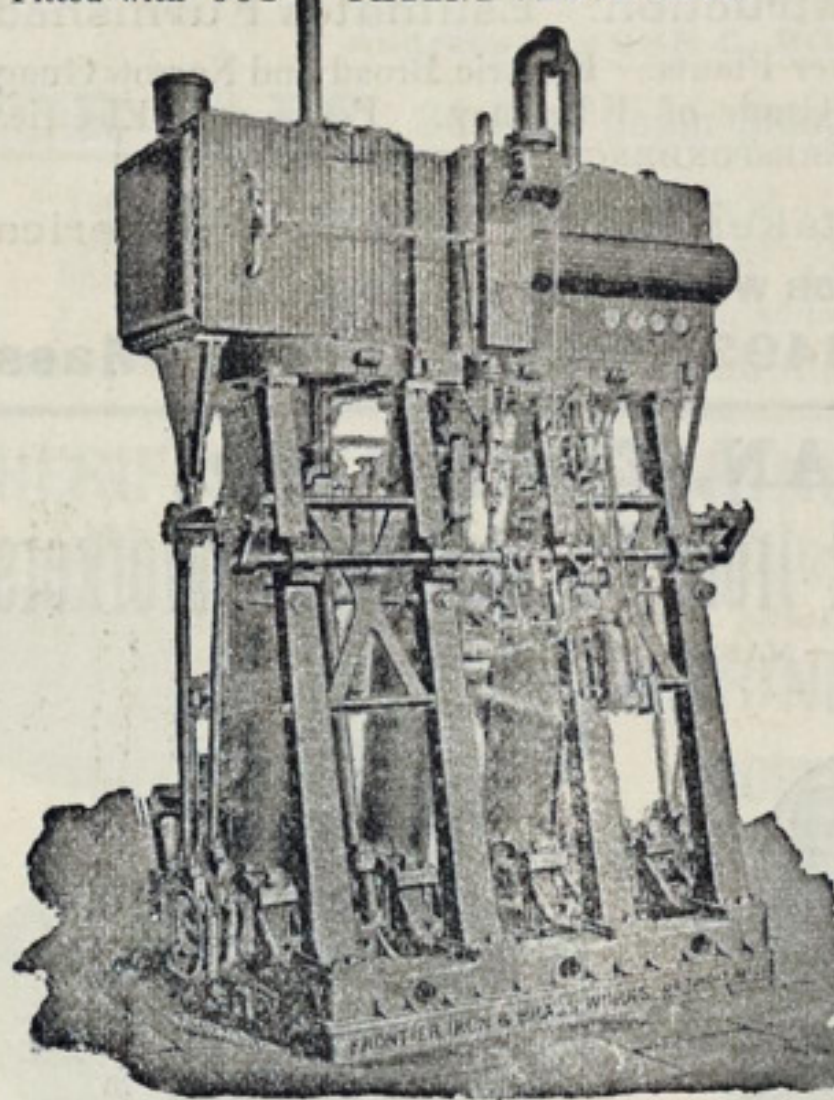
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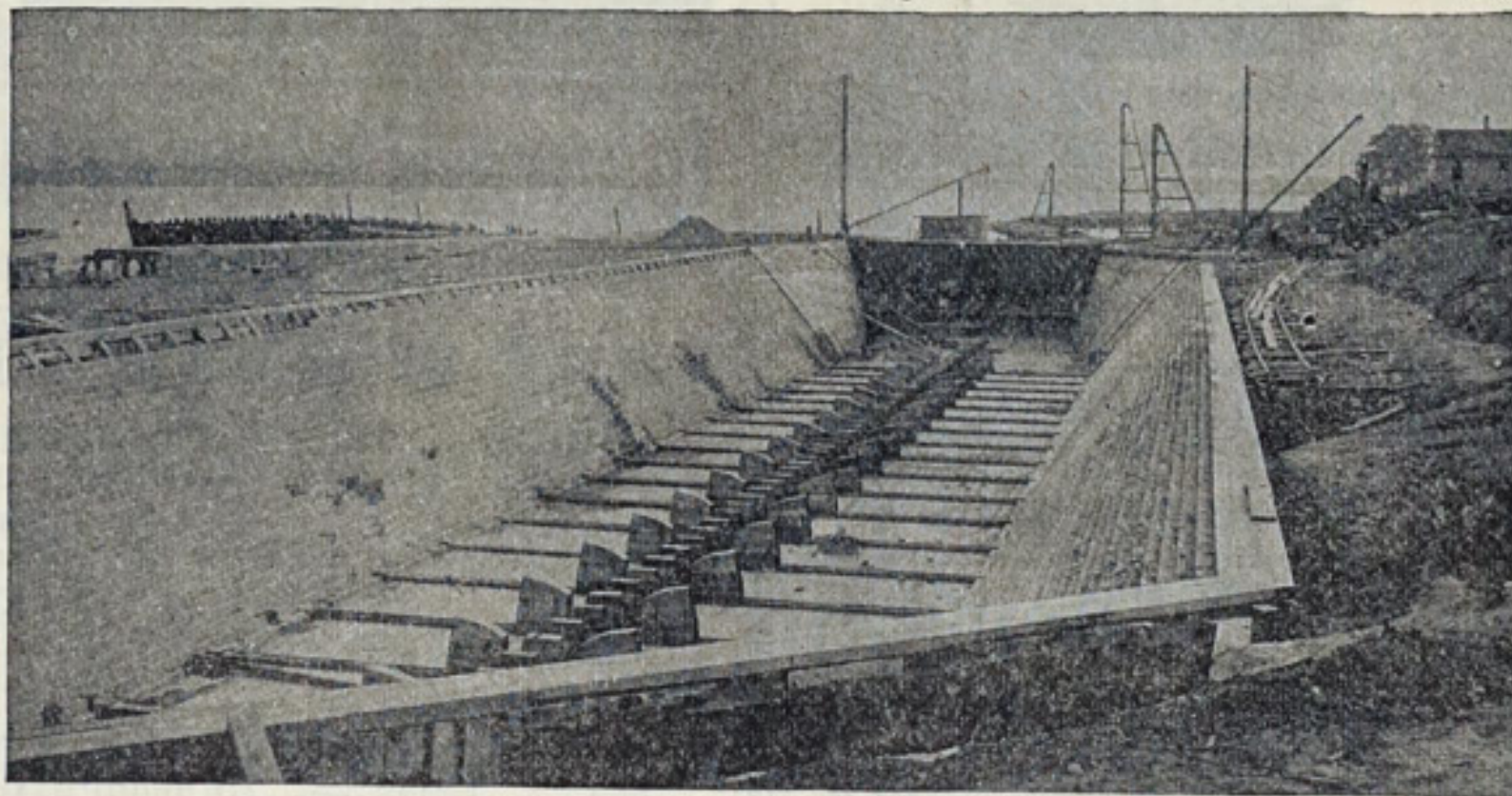
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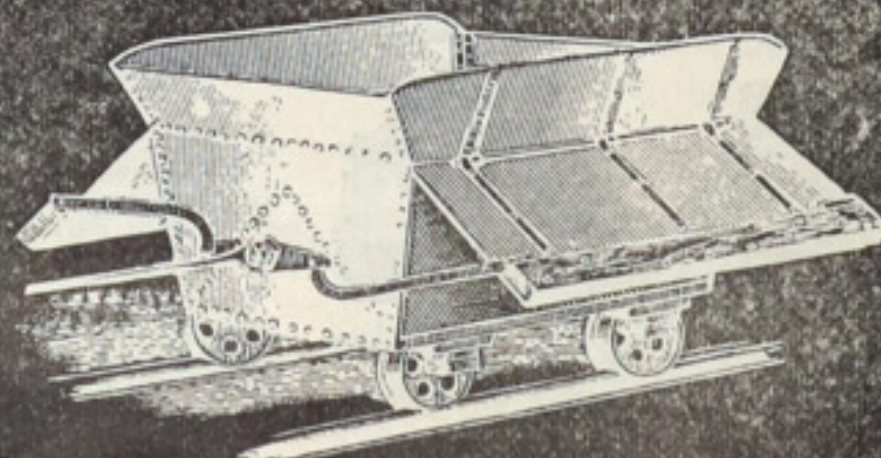
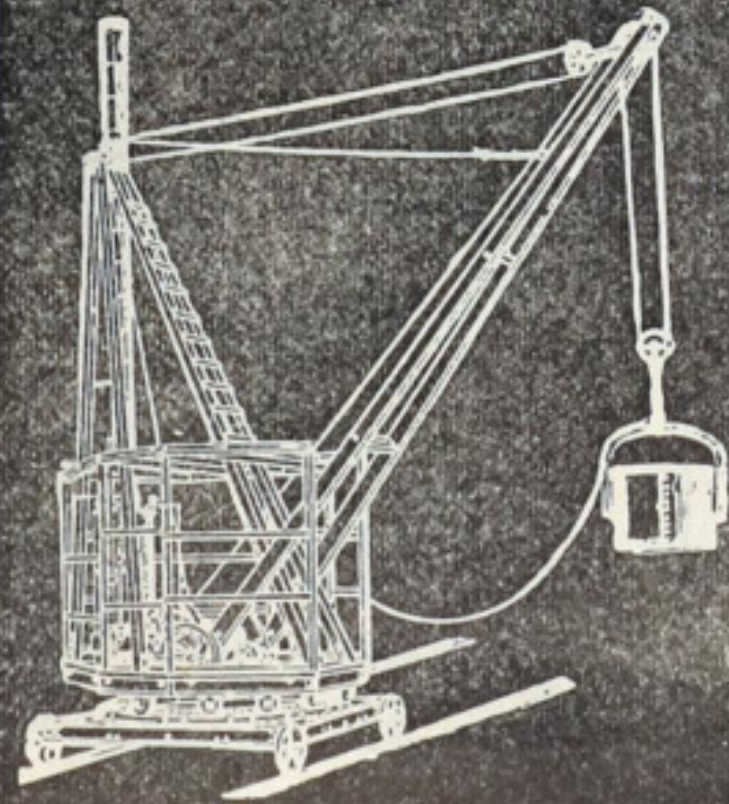
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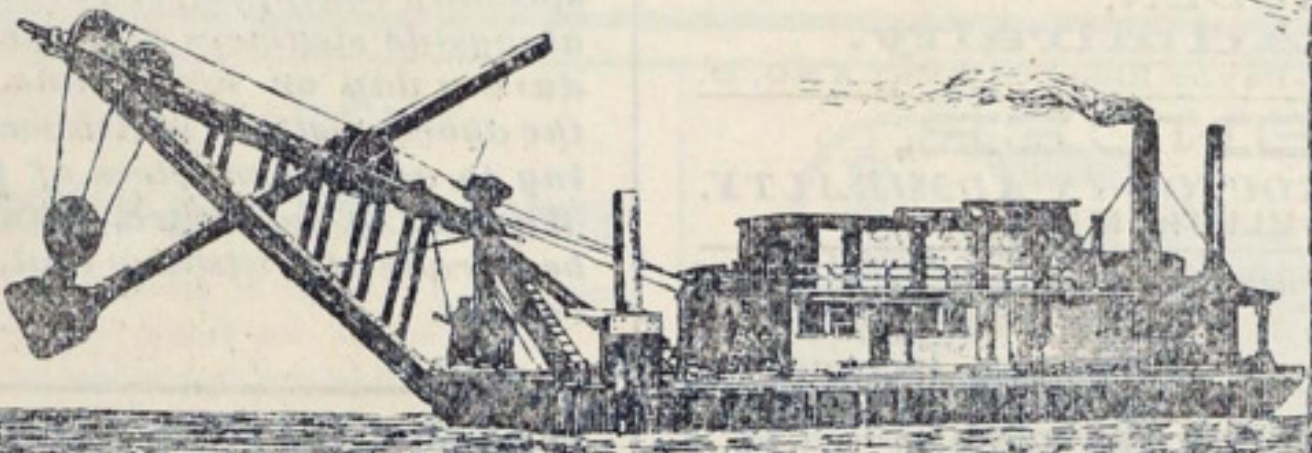
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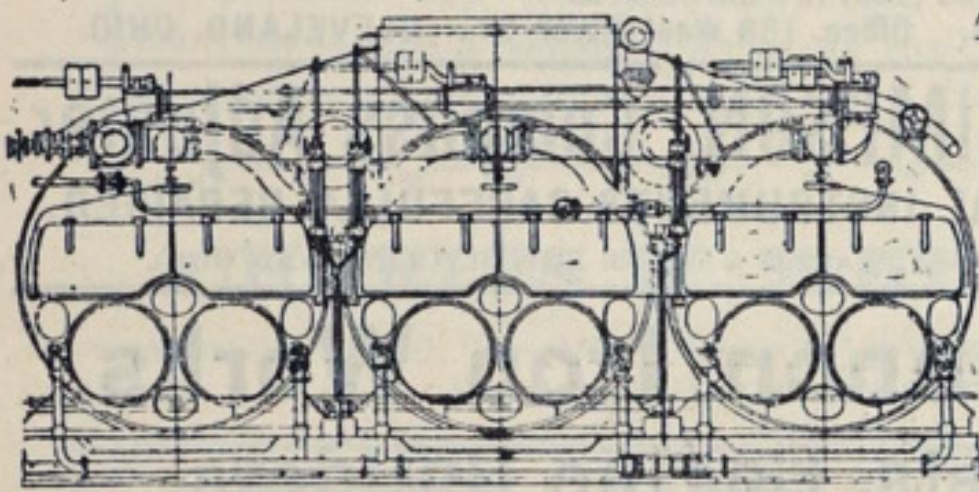
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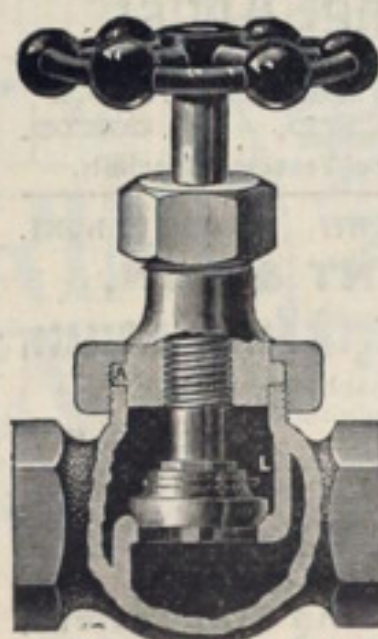
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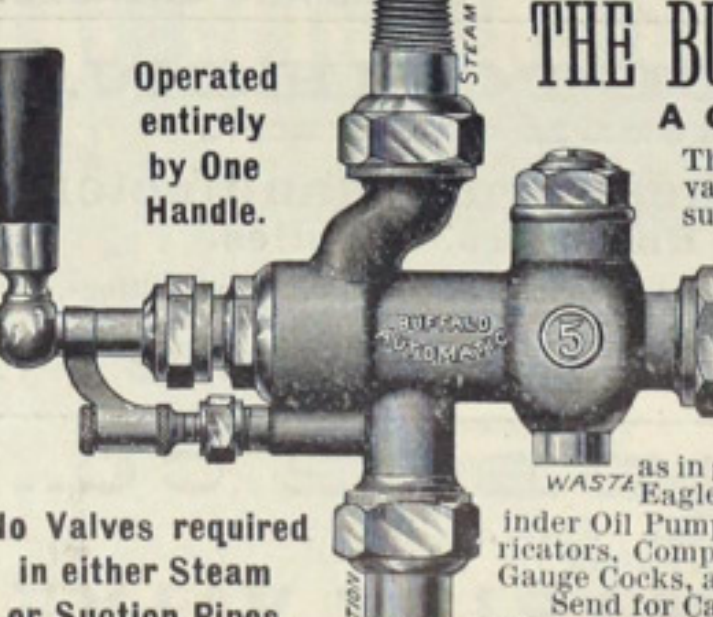
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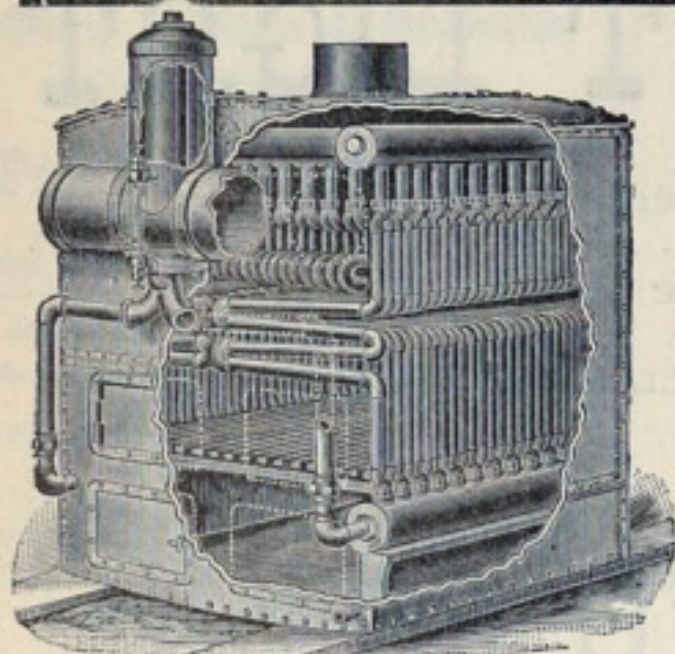
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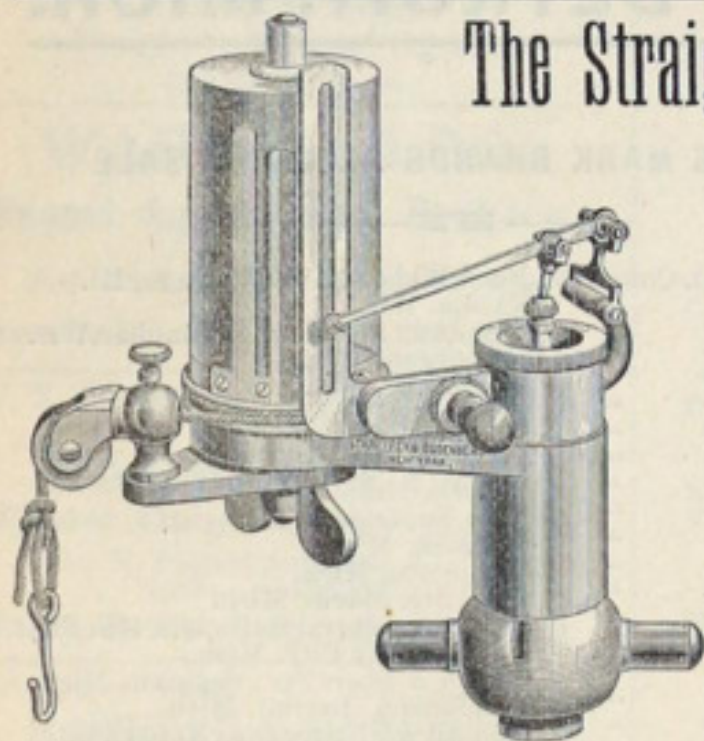
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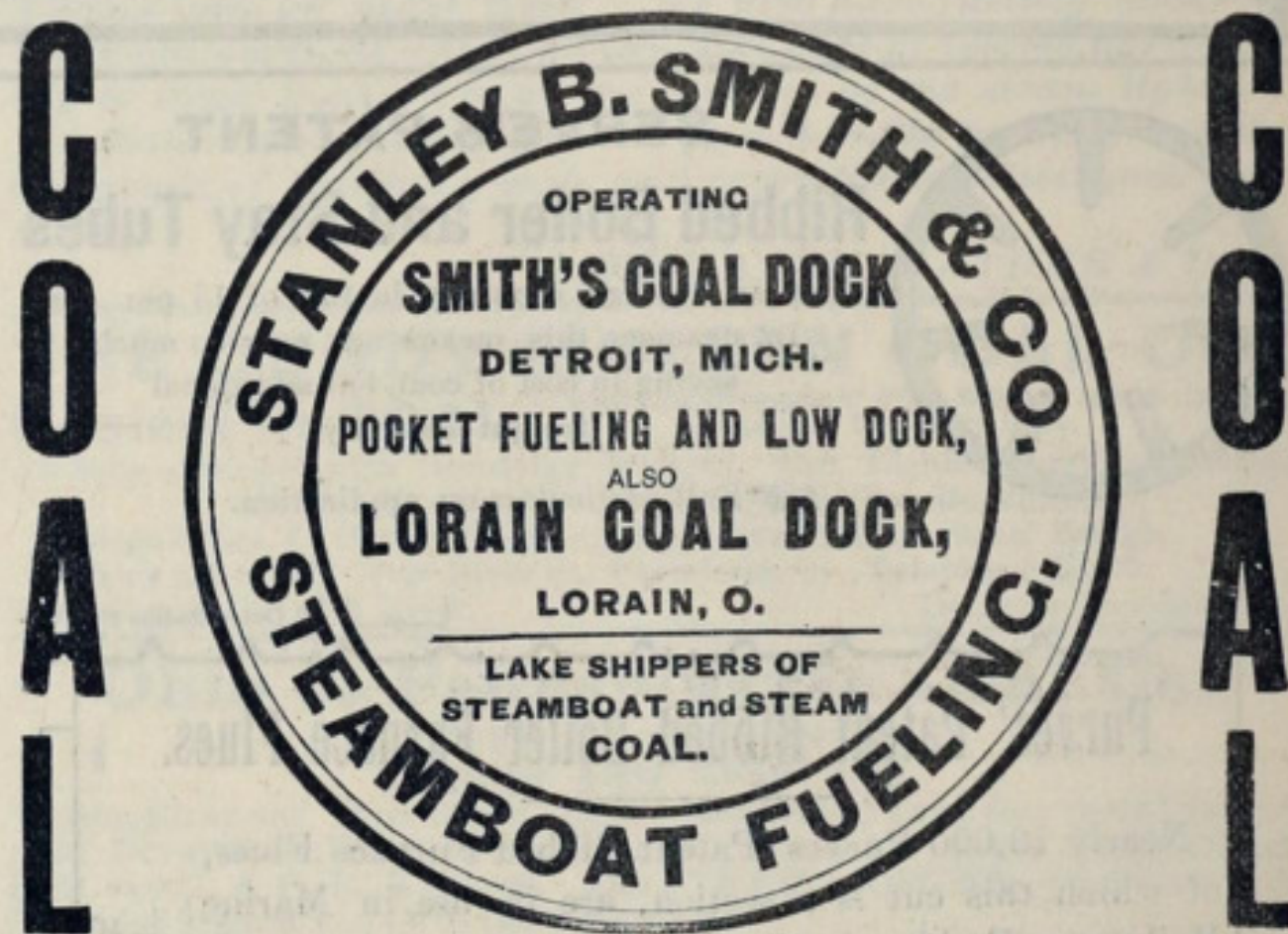
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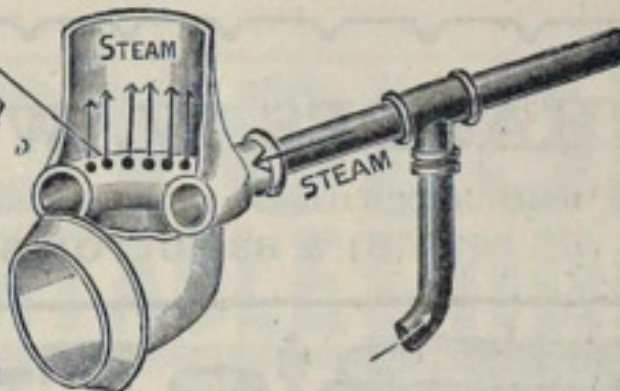
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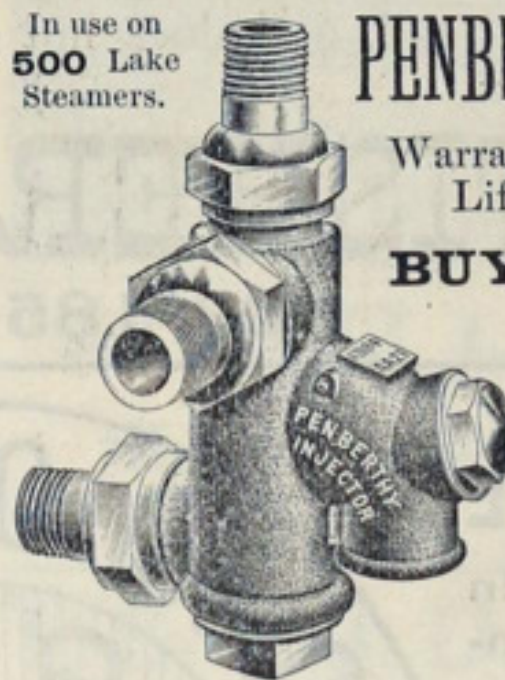
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